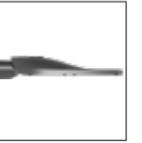
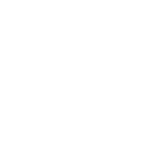


T·LUCE[®] 2023

Ideas for lighting

CONTENT

About us							
Street light							
							
Garden light							
							
							
							
							
							
Flood light							
High bay							

Tunnel light						
Solar light						
LED Engine						
						
LED Modules						
SPD						
Wiring box						
Additional accessories						
Nomenclature						
Light pole						

TESTING CENTER

Our testing center can make structure test, electronic test, material test and optics test.
ISO17025 is in the process.

Structure test: IP class test, IK class test, wind pressure test and vibration test.

Electronic test: EMC test, surge test, and high&low voltage test.

Material test: salt spray test, coating layer thickness measurement, hardness test, and magnetic particle test .

Optics test: Integrating Sphere and GO-R5000 full-field speed goniophotometer.



Photometric tests – light distribution, colorimetric testing and photo biological safety testing.

Quality tests of different type coatings including powder coatings – neutral salt spray testing (NSST), coating layer thickness measurements.



PROJECT



BAHRAIN



BELGIUM



CZECH REPUBLIC



ITALY NAPLES



FRANCE



SINGAPORE



LITHUANIA



SPAIN



SINGAPORE



ITALY



MALAYSIA



MOROCCO



PHILIPPINES
T·LUCE®



ISREAL



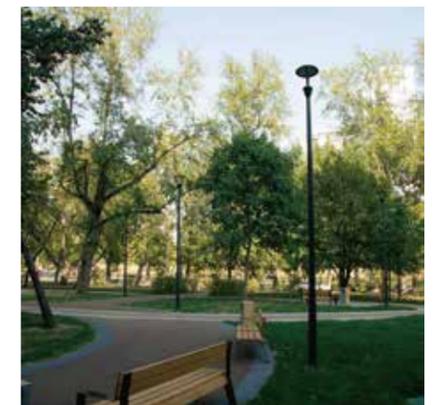
ISREAL



SPAIN



AUSTRALIA



RUSSIA

ABOUT CERTIFICATE

	European Certification of Conformity for performance requirement	IK08	Protected against mechanical impacts equal to 5 Joule
	European Certification of Conformity	IK09	Protected against mechanical impacts equal to 10 Joule
	Compliance	IK10	Protected against mechanical impacts equal to 20 Joule
	Compliance of IEC standard	LM79	Photometric Testing
	Standards Australia International Limited	LM82	Temperature testing for luminaire system
	China Quality Certification Center	TM21	Lifespan calculation
	American standard for Electromagnetic Compatibility	ISTMT	Temperature testing
	American standard for Electromagnetic Compatibility		Waste Electrical and Electronics Equipment Directive
	American standard for Electrical Products	REACH	Registration, Evaluation and Authorisation of Chemicals
	American standard for performance testing	EMC	Electromagnetic Compatibility
	Absence of dangerous substances in electrical and electronic equipments		Fragile
	Fixture in class I	EN40-5	Pole design and manufacturer standard for EU market
	Fixture in class II	EN1461	Galvanization standard
	Group of Photobiological risk	EN10027	Material standard for poles
	UV-stabilized painting	EN288	Welding standard for EU
IP65	Watertight to the insight of dust and protected against splashing water	ASTM A123	Galvanization standard for USA
IP66	Watertight to the insight of dust and protected against water jets	ASW D1.1	Welding standard for USA
IP67	Watertight to the insight of dust and protected against temporary immersion		

ABOUT COLOR

Colors

Various Sensor devices can define different luminous flux according to traffic conditions, weather, city safety requirement to reach the best performance for energy saving and make the citizen more comfortable.



Powder supply by



ABOUT IOT

IOT Remote management and control

Simple - Intuitive - Scalable - Interoperable - Cost-Effective

Hosca offers different types of control and monitor platforms according to your needs to help you remotely optimize your lighting operations in real-time with maps of your network.



Whatever your sector, T-LUCE helps you to become more energy efficient

You can also enrich your lighting network with different kind of sensors (radar, air quality, smart parking, waste management, tags for asset management...) to develop relevant services for your employees, citizens or customers. You can use communicating devices from many vendors since our system is TALQ v2 certified and offers interoperability within multi-protocols of communication.

Depending on your needs, you can decide to use the applications relevant to your business, edit your reports and detailed information about your infrastructures. Thanks to the open API interfaces, you can import data from Hosca CMS into your existing or future management systems.

We have solutions for:

- Cities
- Airports
- Train stations, subways
- Parkings
- Industrial buildings
- Wharehouses
- Hospitals...



Huge and immediate benefits



COST-EFFECTIVE

- Energy (>70%)
- Maintenance (30- 50%)
- ROI (5-6 years)
- Optimization of resources



SCALABLE

- Full modular system
- Interoperability
- Compatible with dense network



RELIABLE AND SECURE

- Security and protection of data with encryption protocols in all devices
- RF Network reliability proven



PERFORMANCE

- Remote and real-time control
- OTA (Over The Air)
- Immediate diagnosis of failures
- Reporting



SATISFACTION

- Lighting level adjusted to needs, safety and use cases
- Compatible with existing / future infrastructures and GIS, CMS



GREEN

- Protection of the environment
- Reduction of emissions
- Reduction of energy

Some Examples

Smart cities: connected streetlights create a dense wireless network deployed in large areas. Any additional IoT device/sensor can use this network and can be managed by the same CMS.

Smart building: the RF network created by the connected luminaires can also be used for asset tracking offering one of the most cost-effective solution in the market, just by adding compatible tags on things.



ABOUT SMART



SENSING DEVICES

Various Sensor devices can define different luminous flux according to traffic conditions, weather, city safety requirement to reach the best performance for energy saving and make the citizen more comfortable.



MOVEMENT AND DETECTION

luminaires activated by-unit or by group when detected the movement including vehicle traffic and human transit and dimming criteria Time for each action.



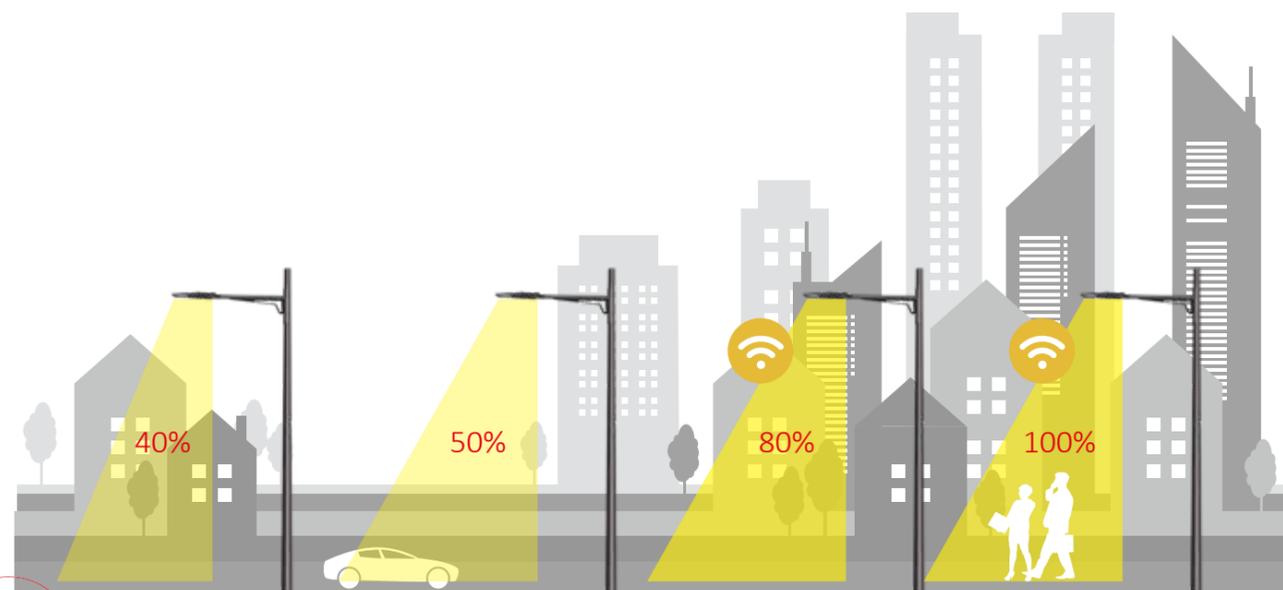
PHOTOCELL AND NEMA SOCKET

The fittings are turn down when the surrounding environment is dark and turned off when it becomes bright again.



OTHER SENSORS

Air Pollution, Temperature, wind, humidity, Camera,



T·LUCE®

ABOUT ZHAGA

Today's street lighting is ready for a smart city infrastructure

In the future, a connected infrastructure will play an even more important role in urban lighting. Already today, Hosca Outdoor LED drivers allow the design of luminaires with the Zhaga Book 18 interface, thus breaking new ground with unprecedented levels of efficiency, flexibility and innovation

The Zhaga consortium joined forces with the DiiA and produced a single Zhaga-D4i certification that combines the Zhaga Book 18 version 2 outdoor connectivity specifications with the DiiA's D4i specifications for intra-luminaire DALI.

Certification program

The Zhaga-D4i certification covers all the critical features including mechanical fit, digital communication, data reporting and power requirements within a single luminaire, ensuring plug-and-play interoperability of luminaires (drivers) and peripherals such as connectivity nodes.



Cost-effective solution

A Zhaga-D4i certified luminaire includes drivers offering features that had previously been in the control node, like energy metering, which has in turn simplified the control device therefore reducing the price of the control system.

2 sockets: top and bottom

The Zhaga socket is small and suited to applications where aesthetics is essential. The architecture of Zhaga-D4i also foresees the possibility of putting two sockets on one luminaire, allowing for instance, the combination of a detection sensor and a control node. This also has the added value of standardising certain detection sensor communications with the D4i protocol.



ABOUT PHOTOMETRIC

Lens type

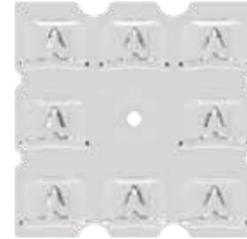
5050/3535



4



6



8

3030



14

Lens shelter

Blocking back light



For 4 in 1 lens



For 6 in 1 lens

LED Modules

- High efficiency outdoor modules
- Suitable for harsh and humid outdoor conditions
- Tested acc. to salt spray test (IEC 60068-2-52) and harmful gas test (GR-1217-CORE)
- Huge performance temperature range from -40 ... +105 °C
- Surge tested (+/- to earth) 6 kV with Tridonic LED Driver
- Integrated NTC for overtemperature protection
- Zhaga Book 15 compliant
- For use with standard 2x2 lenses (e.g. LEDiL Strada 2x2)
- Push terminals for quick and simple wiring



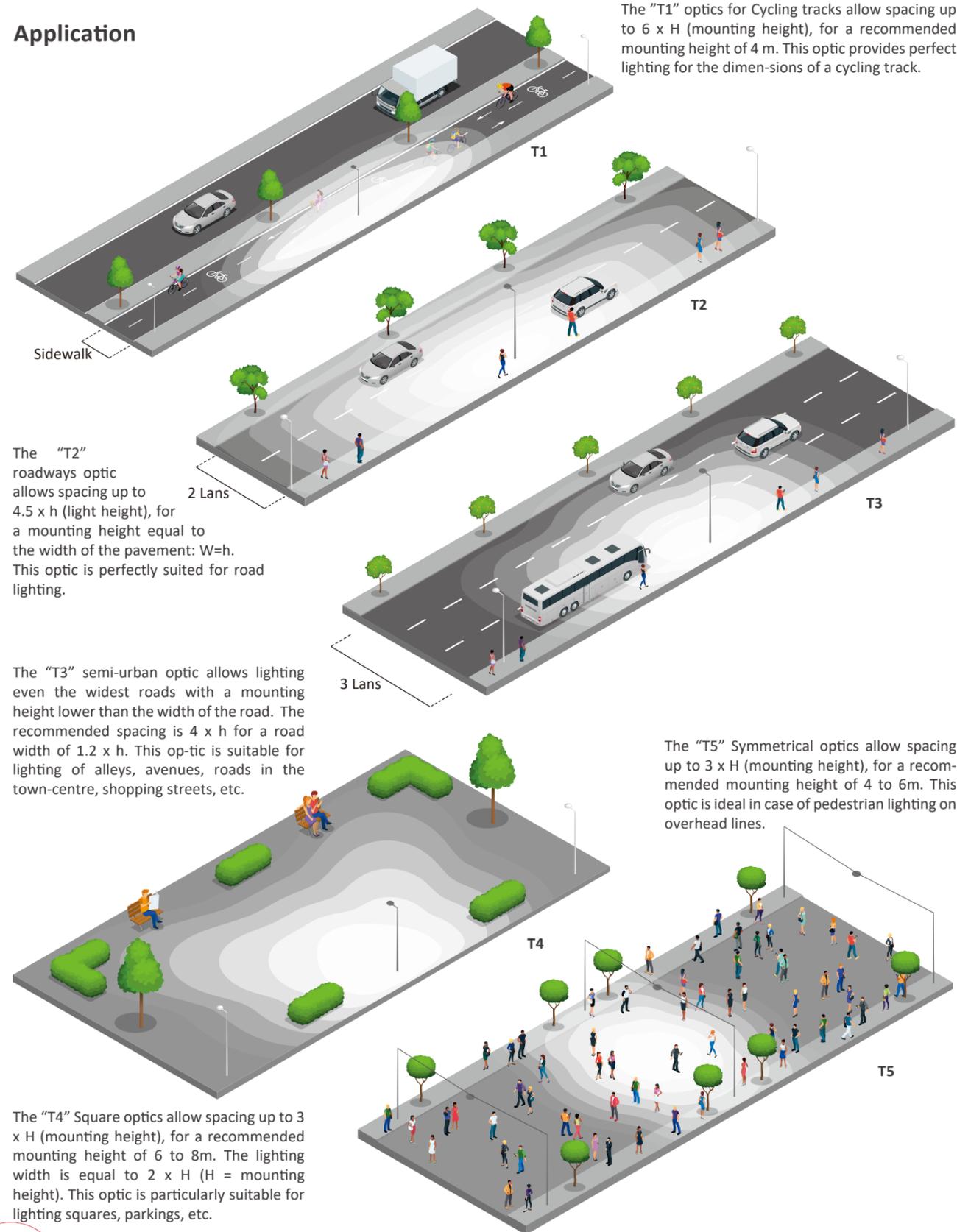
T-Luce Optics

<p>3535/5050</p>	<p>SL4T2</p>	<p>SL4T3</p>	<p>SL4T4</p>	<p>SH4T2</p>	<p>SH4T3</p>	<p>GL4T5</p>	<p>GL4T4</p>
	<p>FH430</p>	<p>FH460</p>	<p>FH490</p>	<p>FH422</p>			
<p>3535/5050</p>	<p>SL6T1</p>	<p>SL6T2</p>	<p>SL6T3</p>	<p>SL6T32</p>	<p>SL6G1</p>	<p>SL6G2</p>	<p>SL6G3</p>
	<p>GL6T5</p>	<p>GL6T4</p>					
<p>3030</p>	<p>SX14T2</p>	<p>SX14T3</p>	<p>SL14T2</p>	<p>SL14EA</p>	<p>SL14EB</p>	<p>GX14T5</p>	<p>GX14T4</p>
<p>3535</p>	<p>S21A8-T3</p>						
<p>5050</p>	<p>FD830</p>	<p>FD860</p>	<p>FD890</p>	<p>FL845</p>			

* Initial S: Street light ; Initial G: Garden light ; Initial F: Flood light

ABOUT PHOTOMETRIC

Application



High Power LED chip



Mid Power LED chip



Wide Range of Colour Temperatures



Broadcast Color Options

CCT	TLCI Options
5700K	95 min
	90 min

- Provides a natural "daylight" experience to indoor & night events
- Reduces the lighting intensity needed for excellent picture quality
- Reduces manual color correction necessary for broadcast



ABOUT DRIVER

DALI2

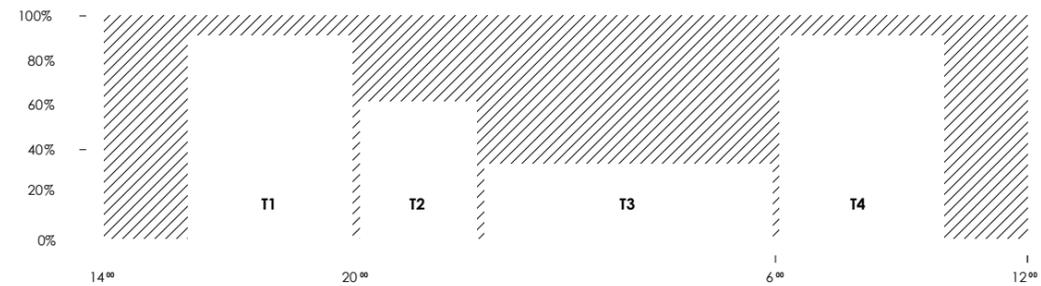
In this operating mode, the driver can be controlled by a DALI application controller via the bidirectional DALI interface and it supports status request queries. Through the application controller, the driver can be integrated into a light management system. The drivers are DALI-2-certified and support stepless dimming, status requests, and addressing of each individual light point. Compared to devices based on DALI version-1, DALI-2-certified drivers ensure more functions and a higher interoperability in the system.

1 - 10 V

Analog signal interface with no feedback from driver. For this dimming interface 100% is the maximum of driver and 10% is the minimum level. The output status is not guaranteed when the dimming signal is less than 1V. The output of LED driver could be completely switched off or there is still some light coming out of LED module. If application requirement is to completely turn off the driver, then additional switch at AC mains of driver is required.

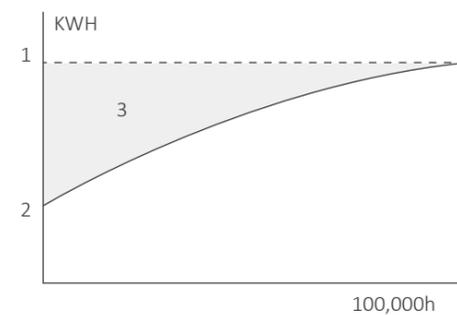
Midnight dimming

Automatic dimming via an integrated timer (no real-time clock): Five independent dimming levels and zones can be set with the Tuner4TRONIC® software. Brightness variation is possible in combination with an external presence sensor.



Constant Light Output (CLO)

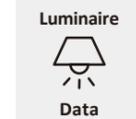
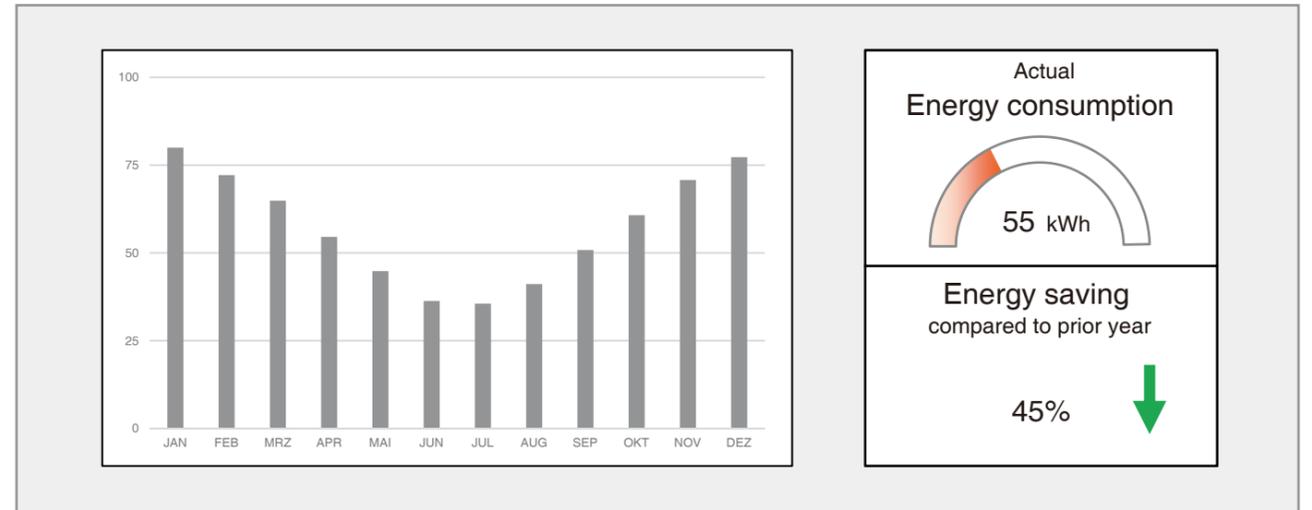
The decrease in the luminous flux of an LED module can be compensated over its entire lifetime via a pre-programmed current curve. This not only ensures stable lighting but also saves energy and increases the lifetime of the LEDs.



Data for predictive maintenance of luminaires and energy efficiency optimization

LED drivers with this feature offer additional operation and status information that exceeds what is currently offered by the DALI standard (such as energy consumption, power, operating time or overvoltage). Such data enable predictive maintenance as well as accelerated and more efficient lighting services. Moreover, it makes the light management system intelligent. The data can also be visualized with the Tuner4TRONIC software.

Energy consumption



Luminaire Data with electronic type label

In order to make light management systems intelligent in terms of service and predictive maintenance, they need basic information about the connected luminaires (model, power, service life etc.). During production, the luminaire manufacturer can store these data in the LED driver, and the light management system can recall these data in the installation.

LED driver state

● Condition	
Operating hours	8.598 h
Switch cycles	89
● Power input	
● Overvoltage	
● Undervoltage	
Input voltage	232 V
Input frequency	50 Hz

LED module state

● Condition	
Operating hours	6.351 h
Switch cycles	137
Temperature	89°C
● Power reduction	
● Safety switch -off	
Short-circuit	
● No LED module / Open	

ABOUT APPLICATION

The BUG system

Backlight, which creates light trespass onto adjacent sites. The B rating takes into account the amount of light in the BL, BM, BH and BVH zones, which are direction of the luminaire OPPOSITE from the area intended to be lighted.

Uplight, which causes artificial sky glow. Lower uplight (zone UL) causes the most sky glow and negatively affects professional and academic astronomy. Upper uplight (UH) is mostly energy waste. The U rating accounts the amount of light into the upper hemisphere with greater concern for the lower uplight angles in UL. Glare, which can be annoying or visually disabling. The G rating takes into account the amount of frontlight in the FH and FVH zones as well as BH and BVH zones.

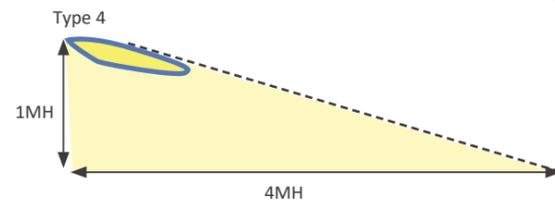
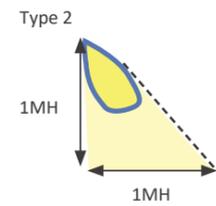
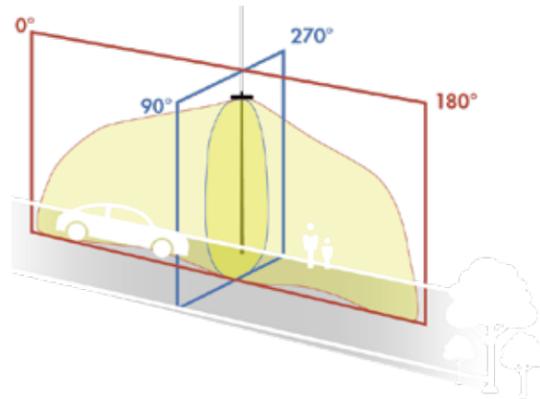
Dark Sky Friendly



HOW TO READ POLAR CURVES

0° to 180° (red):
Light along the road

90° to 270° (blue):
Light across the road
The polar curve can be used to estimate optimal beam for installation

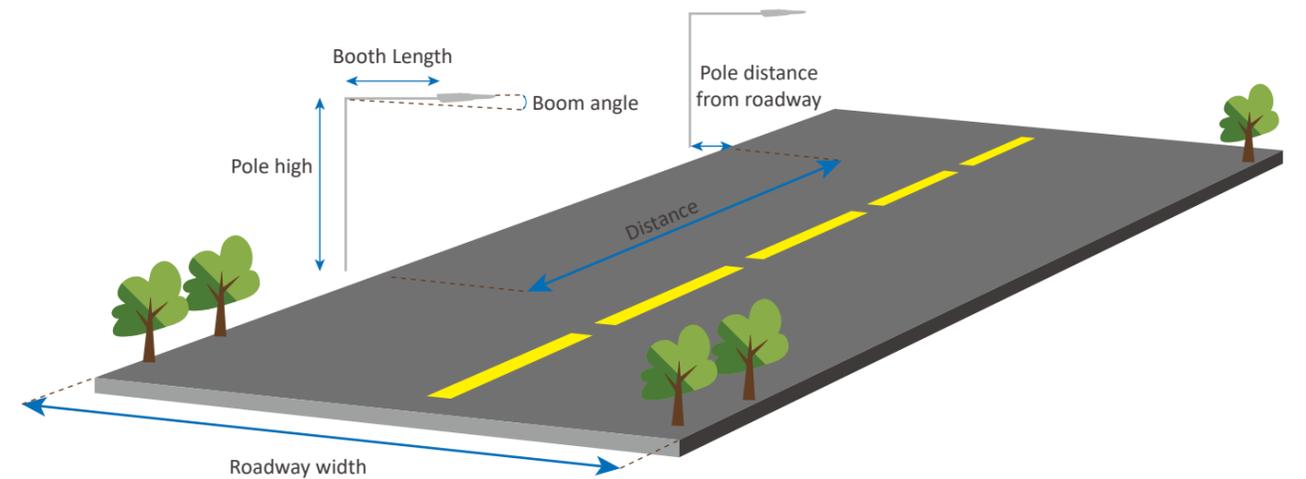


MH = Mounting height unit

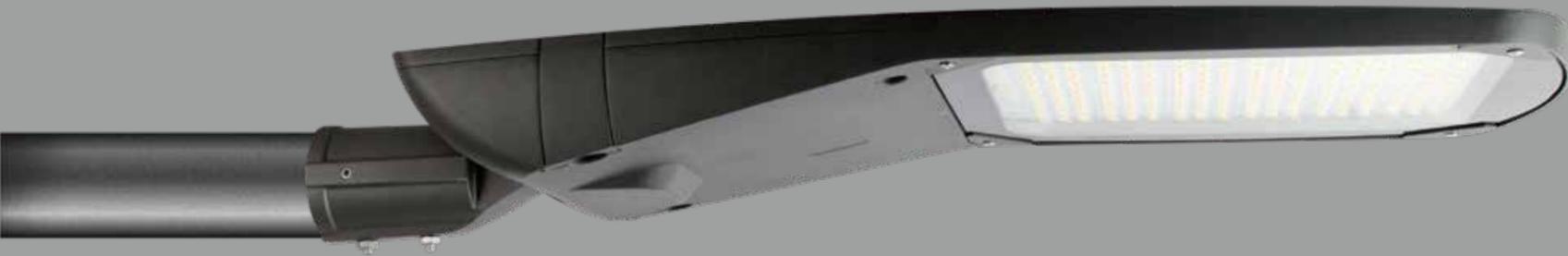
The average road surface luminance (L_m), the overall uniformity of the luminance (U_o), the longitudinal uniformity of the luminance (U_l), the threshold increment (TI) and the surround ratio (SR) are to be calculated and measured in accordance with EN 13201-3 and EN 13201-4.

Class	Luminance of the road surface of the carriageway for the dry road surface condition			Disability glare TI% [maximum]	Lighting of surroundings SR ² [minimum]
	L_m (cd/m ²) [minimum maintained]	U_o [minimum]	U_l [minimum]		
ME1	2.0	0.4	0.7	10	0.5
ME2	1.5	0.4	0.7	10	0.5
ME3a	1.0	0.4	0.7	15	0.5
ME3b	1.0	0.4	0.6	15	0.5
ME3c	1.0	0.4	0.5	15	0.5
ME4a	0.75	0.4	0.6	15	0.5
ME4b	0.75	0.4	0.5	15	0.5
ME5	0.5	0.35	0.4	15	0.5
ME6	0.3	0.35	0.4	15	no requirement

Road and luminaries selection

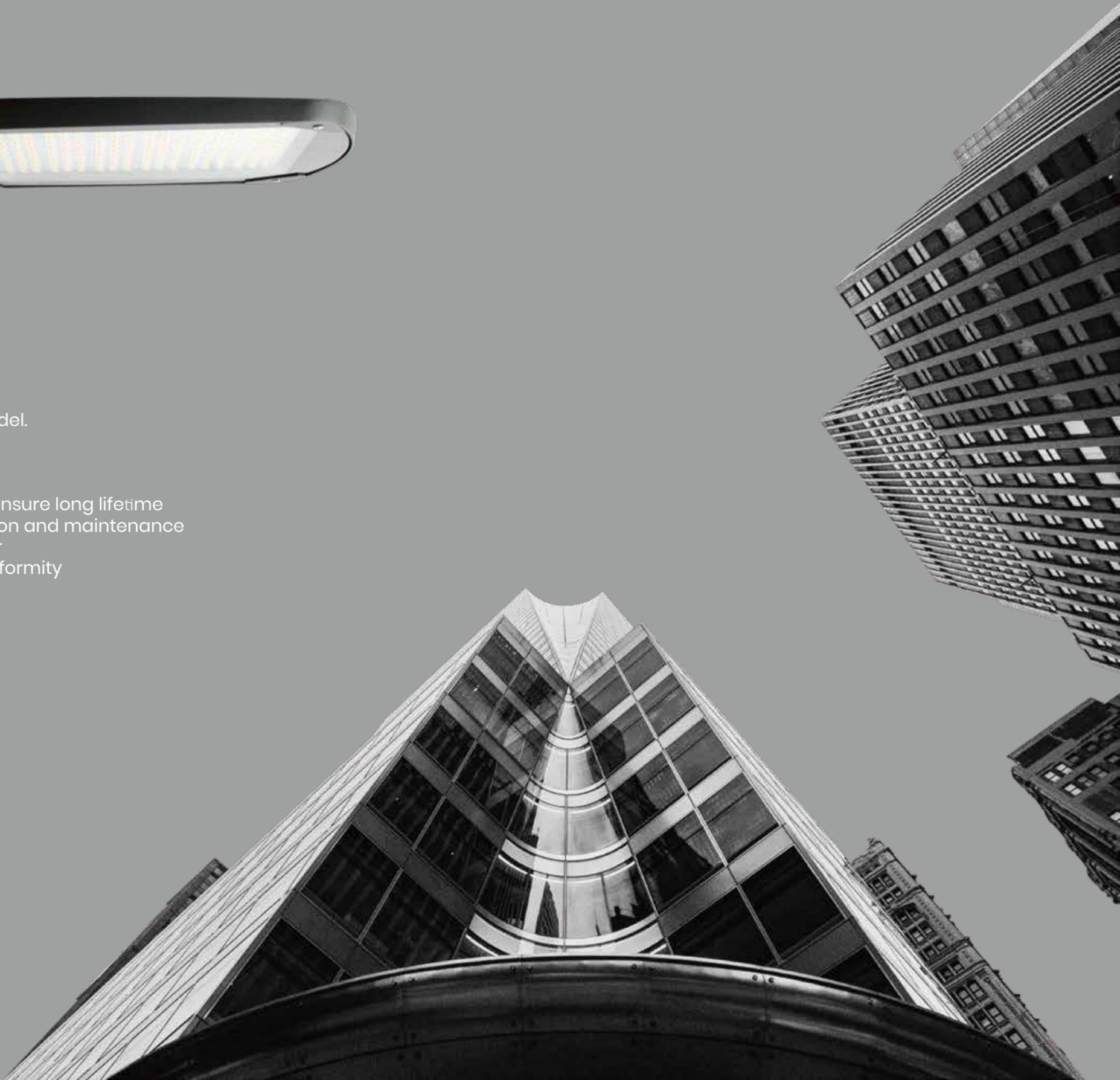


AVA



AVA is a modern and economical model.

- Modern design & Reliable Quality
- Ready for smart control and D4I
- Good Thermal control system to ensure long lifetime
- Tool-free design for easy installation and maintenance
- Low wind area and drop protector
- Best optic design ensure good uniformity



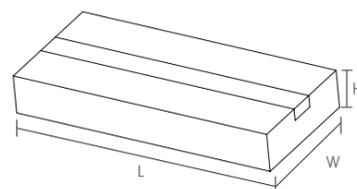


Technical information

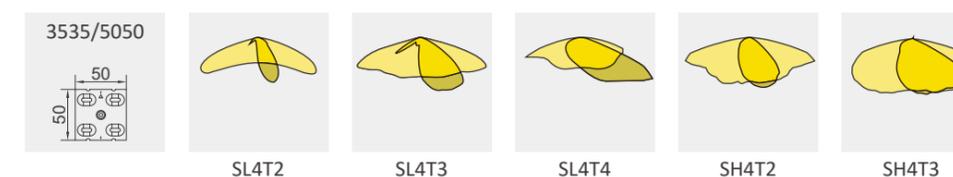
Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70, Ta 25 C	Driver isolation	Class I or Class II
Wattags	30~250W	Control dimming	DALI / 1-10V / Timing / PWM / ON/OFF
Light efficacy	Up to 160lm/W	Operating temperature	-35°C~50°C / 10% ~ 95% (humidity)
CRI	≥ 70	Body parts material	ADC12 (standard)
Color temperature	3000K, 4000K, Amber color	Optic	PC
Operation voltage	AC 220-240V	Screen	Flat tempered glass 5mm thickness
Frequency	50 / 60Hz	Gasket	Silicone
Power factor	≥0.95 cos	Color stability	5 MacAdam steps

Packing Information

Model	Carton Size(L*W*H)	QTY/Carton	N.W.(kg)	G.W.(kg)
S TL-SLF-LED39S	605*270*130mm	1	3.2	3.8
M TL-SLF-LED39M	710*320*130mm	1	5.0	5.8
L TL-SLF-LED39L	880*370*140mm	1	7.2	7.9



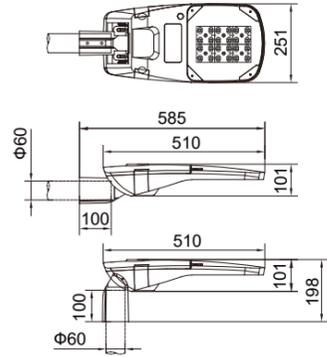
Optics available



Details

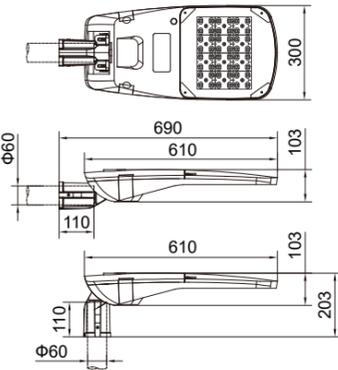


CODE



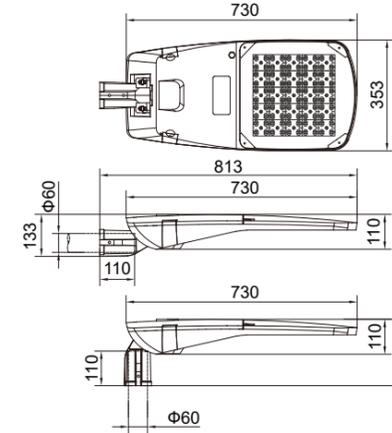
TL-SLF-LED39S
Ava S

Order code	Chip	LED QTY	Lens Type	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-13701	5050	16	4	30	4500	150
TL-13702	5050	16	4	40	6000	150
TL-13703	5050	16	4	50	7500	150
TL-13704	5050	24	4	60	9000	150
TL-13705	5050	24	4	70	10500	150
TL-13706	5050	24	4	80	12000	150



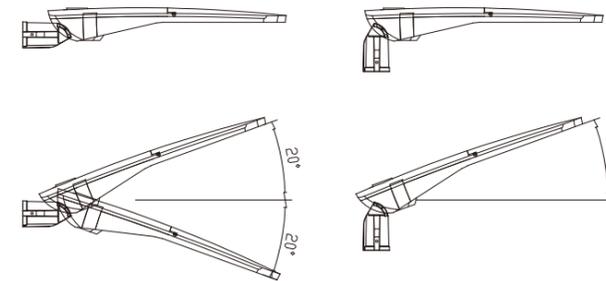
TL-SLF-LED39M
Ava M

Order code	Chip	LED QTY	Lens Type	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-13707	5050	32	4	90	13500	150
TL-13708	5050	32	4	100	15000	150
TL-13709	5050	36	4	110	16500	150
TL-13710	5050	36	4	120	18000	150
TL-13711	5050	36	4	130	19500	150
TL-13712	5050	48	4	140	21000	150
TL-13713	5050	48	4	150	22500	150
TL-13714	5050	48	4	160	24000	150
TL-13715	5050	48	4	170	25500	150
TL-13716	5050	48	4	180	27000	150



TL-SLF-LED39L
Ava L

Order code	Chip	LED QTY	Lens Type	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-13717	5050	80	4	180	27000	150
TL-13718	5050	80	4	190	28500	150
TL-13719	5050	80	4	200	30000	150
TL-13720	5050	100	4	210	31500	150
TL-13721	5050	100	4	220	33000	150
TL-13722	5050	100	4	230	34500	150
TL-13723	5050	100	4	240	36000	150
TL-13724	5050	100	4	250	37500	150



* 5050: LUMILEDS 5050; 3535: CREE XPG3; 3030: LUMILEDS 3030

Lm: This data is tested under normal working condition, the actual data will depends on environment condition, optics/diffuser and CCT.

ALTO



ALTO looks very modern with simple and super-thin design.

- 3 sizes for different wattage from 70W to 240W
- Super luminaire efficiency up to 150 lm/w
- High light efficiency and perfect light distribution
- Good Thermal control system to ensure long lifetime
- Tool-free design for easy installation and maintenance
- Low wind area and drop protector

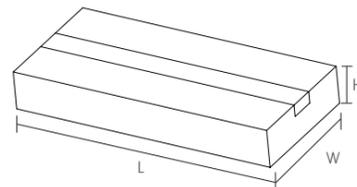


Technical information

Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70, Ta 25 C	Driver isolation	Class I or Class II
Wattags	20~250W	Control dimming	DALI / 1-10V / Timing / PWM
Light efficacy	Up to 151lm/W	Operating temperature	-35°C~50°C / 10% ~ 95% (humidity)
CRI	≥ 70 or ≥ 80	Body parts material	ADC12 (standard) / LM6 (option)
Color temperature	3000K, 4000K, Amber color	Optic	PC (standard) / PMMA (option)
Operation voltage	AC 90-305V or AC 220-240V	Screen	Flat tempered glass 5mm thickness
Frequency	50 / 60Hz	Gasket	Silicone
Power factor	≥0.95 cos	Color stability	3 or 5 MacAdam steps

Packing Information

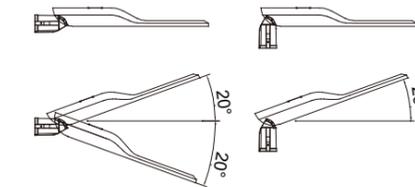
Model	Carton Size(L*W*H)	QTY/Carton	N.W.(kg)	G.W.(kg)
S TL-SLF-LED3IS	675*305*160mm	1	6.7	7.3
M TL-SLF-LED3IM	730*320*140mm	1	8.5	8.8
L TL-SLF-LED3IL	865*380*150mm	1	9.6	11.0

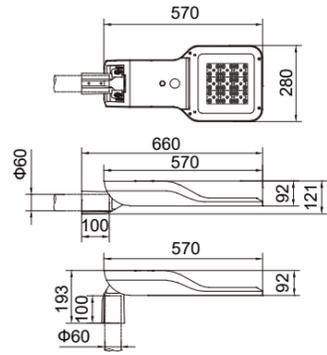


Optics available



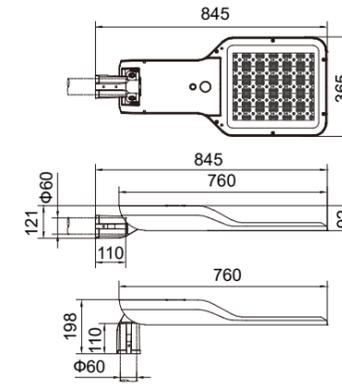
Details





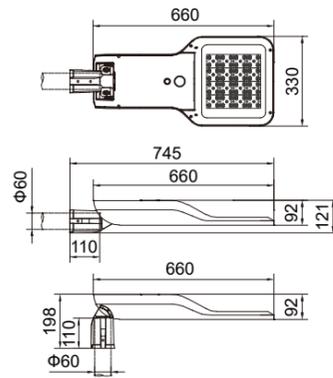
TL-SLF-LED31S
Alto S

Order code	Chip	LED QTY	Lens Type	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-13101	5050	16	4	20	3000	150
TL-13102	5050	16	4	30	4500	150
TL-13103	5050	24	4	40	6000	150
TL-13104	5050	24	4	50	7500	150
TL-13105	5050	36	4	60	9000	150
TL-13106	5050	36	4	80	12000	150



TL-SLF-LED31L
Alto L

Order code	Chip	LED QTY	Lens Type	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-13116	5050	80	4	160	24000	150
TL-13117	5050	80	4	170	25500	150
TL-13118	5050	100	4	180	27000	150
TL-13119	5050	100	4	190	28500	150
TL-13120	5050	100	4	200	30000	150
TL-13121	5050	100	4	210	31500	150
TL-13122	5050	120	4	220	33000	150
TL-13123	5050	120	4	230	34500	150
TL-13124	5050	120	4	240	36000	150
TL-13125	5050	120	4	250	37500	150



TL-SLF-LED31M
Alto M

Order code	Chip	LED QTY	Lens Type	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-13107	5050	36	4	60	9000	150
TL-13108	5050	36	4	80	12000	150
TL-13109	5050	48	4	90	13500	150
TL-13110	5050	48	4	100	15000	150
TL-13111	5050	48	4	110	16500	150
TL-13112	5050	64	4	120	18000	150
TL-13113	5050	64	4	130	19500	150
TL-13114	5050	64	4	140	21000	150
TL-13115	5050	64	4	150	22500	150

* 5050: LUMILEDS 5050; 3535: CREE XPG3; 3030: LUMILEDS 3030

Lm: This data is tested under normal working condition, the actual data will depends on environment condition, optics/diffuser and CCT.

BRYN



BRYN design Inspired by the McLaren sports car key.

- 3 sizes for different wattage from 30W to 120W
- Super luminaire efficiency up to 150 lm/w
- High light efficiency and perfect light distribution
- Economical

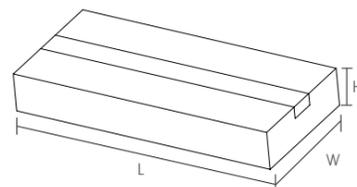


Technical information

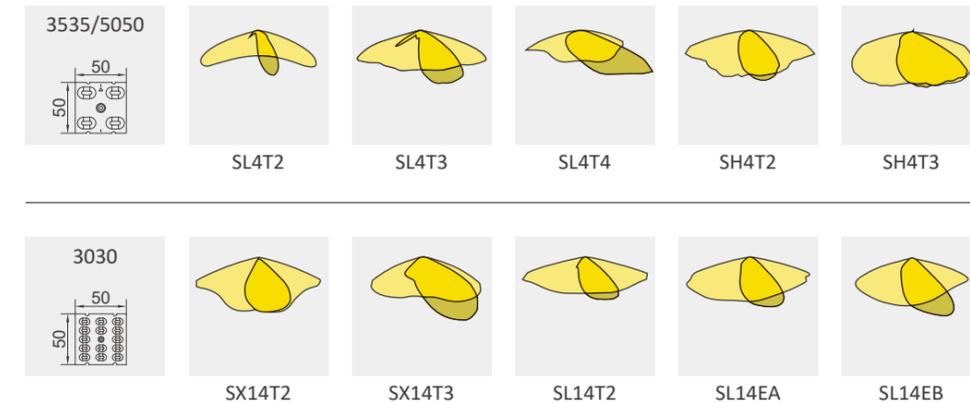
Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70,Ta 25 C	Driver isolation	Class I or Class II
Wattags	20~200W	Control dimming	DALI / 1-10V / Timing / PWM
Light efficacy	Up to 150lm/W	Operating temperature	-35°C~50°C / 10% ~ 95% (humidity)
CRI	≥ 70 or ≥ 80	Body parts material	ADC12 (standard) / LM6 (option)
Color temperature	3000K, 4000K, Amber color	Optic	PC (standard) / PMMA (option)
Operation voltage	AC 90-305V or AC 220-240V	Screen	Flat tempered glass 5mm thickness
Frequency	50 / 60Hz	Gasket	Silicone
Power factor	≥0.95 cos	Color stability	3 or 5 MacAdam steps

Packing Information

Model	Carton Size(L*W*H)	QTY/Carton	N.W.(kg)	G.W.(kg)
S TL-SLF-LED36S	605*250*130mm	1	3.2	3.8
M TL-SLF-LED36M	710*320*130mm	1	5.0	5.8

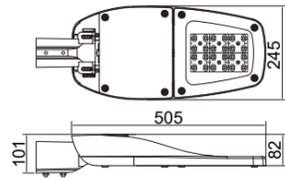


Optics available



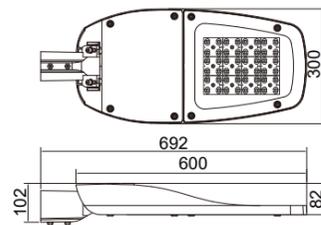
Details





TL-SLF-LED36S
Key S

Order code	Chip	LED QTY	Lens Type	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-13601	5050	16	4	20	3000	150
TL-13602	5050	16	4	30	4500	150
TL-13603	5050	16	4	40	6000	150
TL-13604	5050	24	4	50	7500	150
TL-13605	5050	24	4	60	9000	150
TL-13606	5050	24	4	70	10500	150
TL-13607	3030	56	14	20	2600	130
TL-13608	3030	56	14	30	3900	130
TL-13609	3030	56	14	40	5200	130
TL-13610	3030	84	14	50	6500	130
TL-13611	3030	84	14	60	7800	130
TL-13612	3030	84	14	70	9100	130

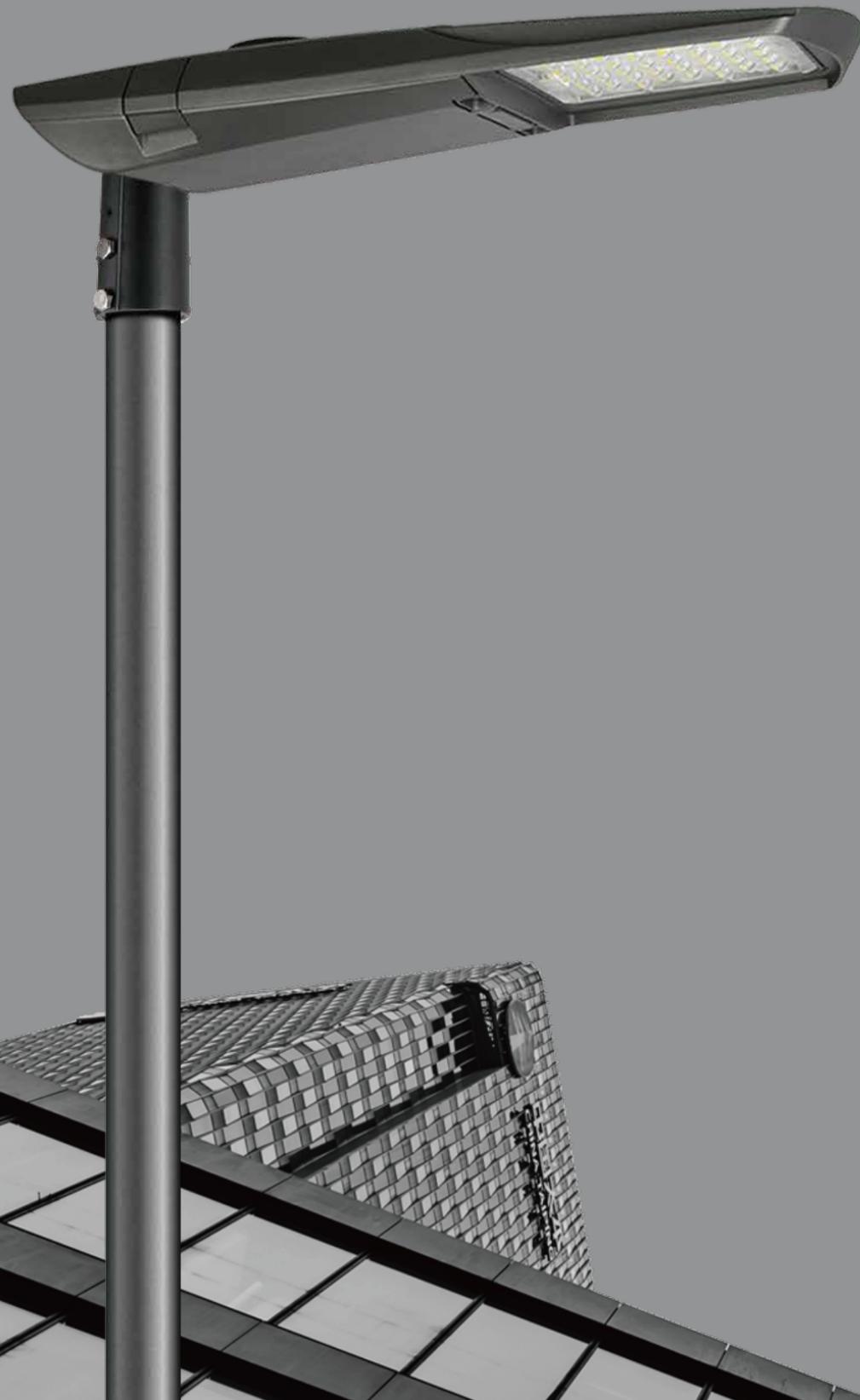


TL-SLF-LED36M
Key M

Order code	Chip	LED QTY	Lens Type	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-13613	5050	36	4	80	12000	150
TL-13614	5050	36	4	90	13500	150
TL-13615	5050	36	4	100	15000	150
TL-13616	5050	36	4	110	16500	150
TL-13617	5050	48	4	120	18000	150
TL-13618	5050	48	4	130	19500	150
TL-13619	5050	48	4	140	21000	150
TL-13620	5050	48	4	150	22500	150
TL-13621	3030	126	14	80	10400	130
TL-13622	3030	126	14	90	11700	130
TL-13623	3030	126	14	100	13000	130
TL-13624	3030	126	14	110	14300	130
TL-13625	3030	168	14	120	15600	130
TL-13626	3030	168	14	130	16900	130
TL-13627	3030	168	14	140	18200	130
TL-13628	3030	168	14	150	19500	130

* 5050: LUMILEDS 5050; 3535: CREE XPG3; 3030: LUMILEDS 3030

Lm: This data is tested under normal working condition, the actual data will depend on environment condition, optics/diffuser and CCT.

The logo for LETO, featuring the word "LETO" in a bold, sans-serif font. The letter "L" is red, while "E", "T", and "O" are white.

LETO is a modern and economical model.

- 5 sizes for different wattage 70W to 240W
- Economical
- Modern design
- Good Thermal control system to ensure long lifetime
- Tool-free design for easy installation and maintenance
- Low wind area and drop protector

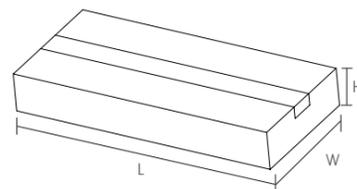


Technical information

Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70, Ta 25 C	Driver isolation	Class I or Class II
Wattags	30~320W	Control dimming	DALI / 1-10V / Timing / PWM
Light efficacy	Up to 140lm/W	Operating temperature	-35°C~50°C / 10% ~ 95% (humidity)
CRI	≥ 70 or ≥ 80	Body parts material	ADC12 (standard) / LM6 (option)
Color temperature	3000K, 4000K, Amber color	Optic	PC (standard) / PMMA (option)
Operation voltage	AC 90-305V or AC 220-240V	Screen	Flat tempered glass 5mm thickness
Frequency	50 / 60Hz	Gasket	Silicone
Power factor	≥0.95 cos	Color stability	3 or 5 MacAdam steps

Packing Information

Model	Carton Size(L*W*H)	QTY/Carton	N.W.(kg)	G.W.(kg)
XS TL-SLF-LED32-XS	590*245*140mm	1	4.3	4.7
S TL-SLF-LED32-S	665*270*135mm	1	5.3	6.2
M TL-SLF-LED32-M	730*320*140mm	1	7.0	7.7
L TL-SLF-LED32-L	820*360*135mm	1	8.8	9.7
XL TL-SLF-LED32-XL	945*415*145mm	1	9.6	10.8

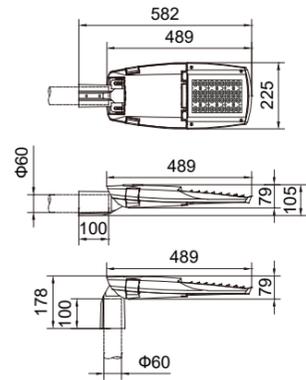


Optics available



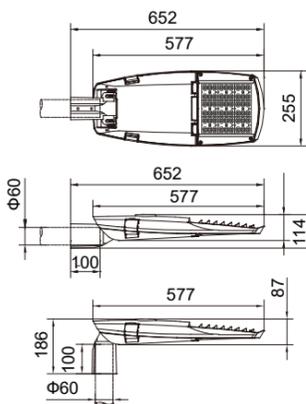
Details





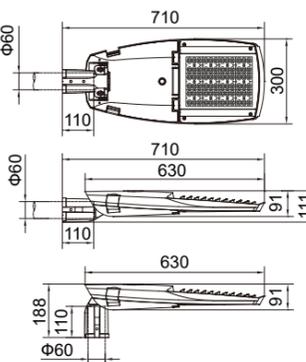
TL-SLF-LED32XS
Leto XS

Order code	Chip	LED QTY	Lens Type	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-13209	5050	12	6	30	4500	150
TL-13210	5050	18	6	40	6000	150
TL-13211	5050	24	6	50	7500	150
TL-13212	5050	36	6	60	9000	150
TL-13213	3030	28	14	30	3900	130
TL-13214	3030	42	14	40	5200	130
TL-13215	3030	56	14	50	6500	130
TL-13216	3030	84	14	60	7800	130



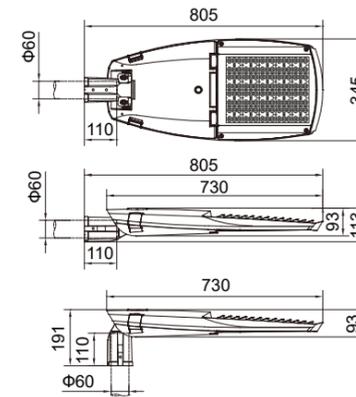
TL-SLF-LED32S
Leto S

Order code	Chip	LED QTY	Lens Type	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-13223	5050	36	6	80	10800	150
TL-13224	5050	48	6	100	13600	150
TL-13225	5050	54	6	120	16200	150
TL-13226	3030	84	14	80	10000	130
TL-13227	3030	112	14	100	12500	130
TL-13228	3030	126	14	120	15000	130



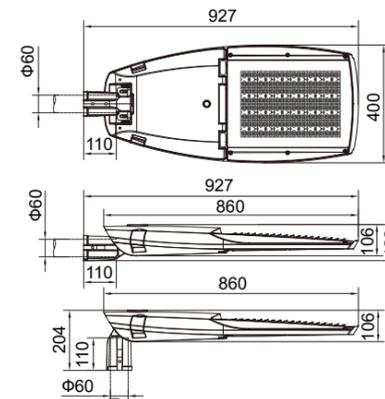
TL-SLF-LED32M
Leto M

Order code	Chip	LED QTY	Lens Type	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-13237	5050	54	6	120	18000	150
TL-13238	5050	72	6	150	22500	150
TL-13239	3030	126	14	120	15600	130
TL-13240	3030	168	14	150	19500	130



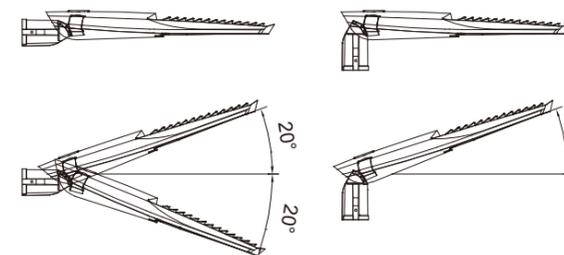
TL-SLF-LED32L
Leto L

Order code	Chip	LED QTY	Lens Type	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-13249	5050	96	6	180	27000	150
TL-13250	5050	96	6	200	30000	150
TL-13251	5050	120	6	240	36000	150
TL-13252	3030	224	14	180	23400	130
TL-13253	3030	224	14	200	26000	130
TL-13254	3030	280	14	240	31200	130



TL-SLF-LED32XL
Leto XL

Order code	Chip	LED QTY	Lens Type	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-13263	5050	144	6	280	42000	150
TL-13264	5050	144	6	320	48000	150
TL-13265	3030	336	14	280	36400	130
TL-13266	3030	336	14	320	41600	130



* 5050: LUMILEDS 5050; 3535: CREE XPG3; 3030: LUMILEDS 3030

Lm: This data is tested under normal working condition, the actual data will depends on environment condition, optics/diffuser and CCT.

MAUI



MAUI is ready for American market with ETL certification.

- Unique appearance
- Unique disassembly design
- Dark sky friendly and no upward light
- Flexible and intelligent drivers for smart city
- Low wind area and drop protector

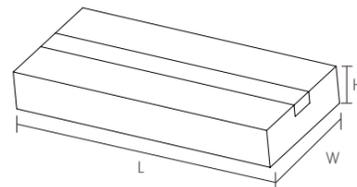


Technical information

Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70, Ta 25 C	Driver isolation	Class I or Class II
Wattags	40~200W	Control dimming	DALI / 1-10V / Timing / PWM
Light efficacy	Up to 147lm/W	Operating temperature	-35°C~50°C / 10% ~ 95% (humidity)
CRI	≥ 70 or ≥ 80	Body parts material	ADC12 (standard) / LM6 (option)
Color temperature	3000K, 4000K, Amber color	Optic	PC (standard) / PMMA (option)
Operation voltage	AC 90-305V or AC 220-240V	Screen	Flat tempered glass 5mm thickness
Frequency	50 / 60Hz	Gasket	Silicone
Power factor	≥0.95 cos	Color stability	3 or 5 MacAdam steps

Packing Information

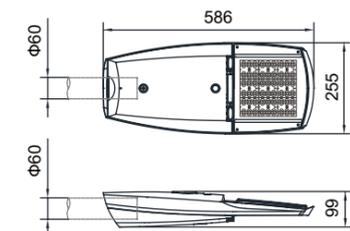
Model	Carton Size(L*W*H)	QTY/Carton	N.W.(kg)	G.W.(kg)
S TL-SLF-LED26GS	600*265*130mm	1	5.9	6.2
M TL-SLF-LED26GM	810*360*160mm	1	7.3	8.9



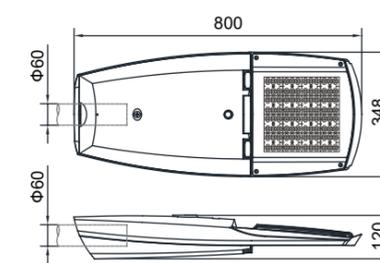
Optics available



Details



TL-SLF-LED26GS
Maui S



TL-SLF-LED26GM
Maui M

Order code	Chip	LED QTY	Lens Type	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-12601	5050	18	6	40	6000	150
TL-12602	5050	36	6	80	12000	150
TL-12603	5050	54	6	100	15000	150

Order code	Chip	LED QTY	Lens Type	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-12604	5050	54	6	120	18000	150
TL-12605	5050	72	6	150	22500	150
TL-12606	5050	96	6	200	30000	150

* 5050: LUMILEDS 5050; 3535: CREE XPG3; 3030: LUMILEDS 3030

Lm: This data is tested under normal working condition, the actual data will depends on environment condition, optics/diffuser and CCT.

AURORA



AURORA has smooth backside with higher self-purification ability. The integration of street light and camera has been realized based on this model.

- Elegant & super- Slim aesthetics
- Tool free installation and maintenance
- Dark sky friendly and no upward light
- Flexible and intelligent drivers for smart city
- Low wind area and drop protector
- Camera support

AURORA

Patented design



FOUR SIZE

25W~80W
CxS:0.11m²
ø76mm / ø60mm

40W~150W
CxS:0.143m²
ø76mm / ø60mm

65W~200W
CxS:0.239m²
ø76mm / ø60mm

125W~320W
CxS:0.332m²
ø76mm / ø60mm

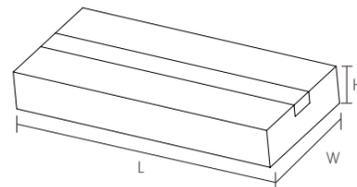


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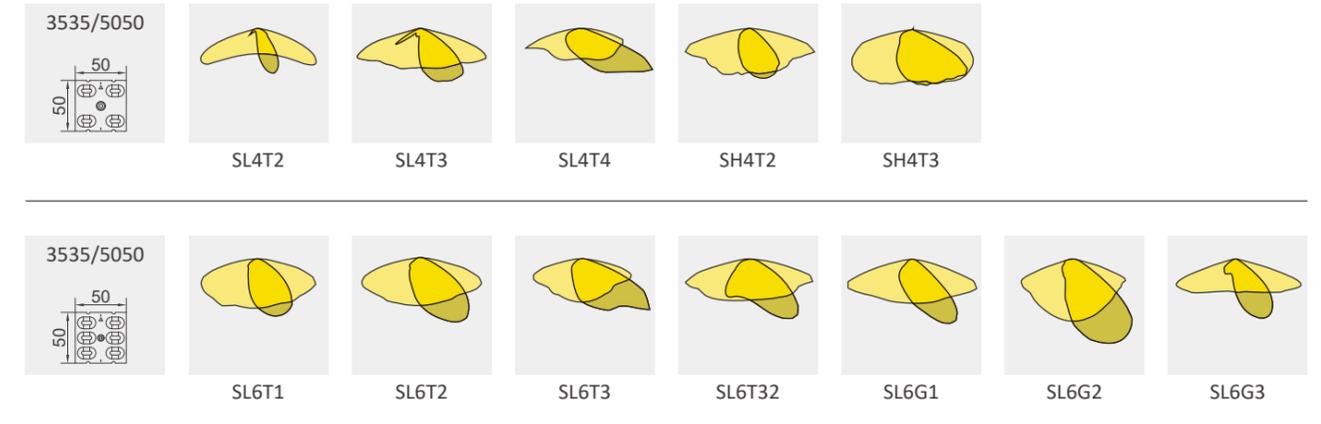
Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70, Ta 25 C	Driver isolation	Class I or Class II
Wattags	25~320W	Control dimming	DALI / 1-10V / Timing / PWM
Light efficacy	Up to 161lm/W	Operating temperature	-35°C~50°C / 10% ~ 95% (humidity)
CRI	≥ 70 or ≥ 80	Body parts material	ADC12 (standard) / LM6 (option)
Color temperature	3000K, 4000K, Amber color	Optic	PC (standard) / PMMA (option)
Operation voltage	AC 90-305V or AC 220-240V	Screen	Flat tempered glass 5mm thickness
Frequency	50 / 60Hz	Gasket	Silicone
Power factor	≥0.95 cos	Color stability	3 or 5 MacAdam steps

Packing Information

Model	Carton Size(L*W*H)	QTY/Carton	N.W.(kg)	G.W.(kg)
XS TL-SLF-LED15C	635*320*140mm	1	5.7	6.2
S TL-SLF-LED15B	740*360*150mm	1	7.3	8.5
M TL-SLF-LED15A	930*445*155mm	1	11.9	13.9
L TL-SLF-LED15	1080*505*170mm	1	17.6	20.1



Optics available



Details



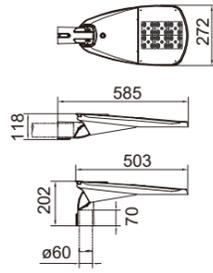
Smooth back

L with fins

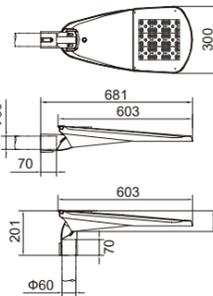
Sky eye



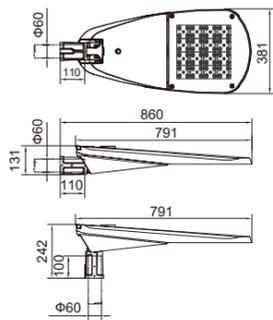
DS-2DE328ZYL-ACX



TL-SLF-LED15C
Aurora XS



TL-SLF-LED15B
Aurora S

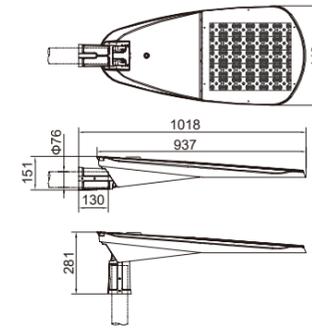


TL-SLF-LED15A
Aurora M

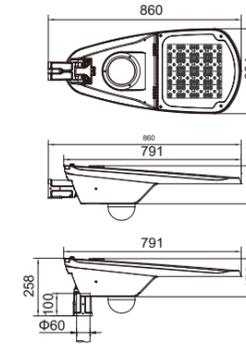
Order code	Chip	LED QTY	Current (mA)	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-11501	5050	24	350	25	3550	142
TL-11502	5050	24	400	30	4230	141
TL-11503	5050	24	500	40	5480	137
TL-11504	5050	24	700	55	7260	132
TL-11505	5050	24	800	60	7740	129
TL-11506	5050	24	1050	80	9520	119
TL-11507	3535	24	350	25	3533	141
TL-11508	3535	24	400	30	3991	133
TL-11509	3535	24	500	40	5004	125
TL-11510	3535	24	700	55	6686	122
TL-11511	3535	24	800	60	7182	120
TL-11512	3535	24	1050	80	9226	115

Order code	Chip	LED QTY	Current (mA)	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-11513	5050	36	350	40	5680	142
TL-11514	5050	36	525	60	8160	136
TL-11515	5050	36	700	80	10560	132
TL-11516	5050	36	800	90	11610	129
TL-11517	3535	36	350	40	5298	132
TL-11518	3535	36	525	60	7573	126
TL-11519	3535	36	700	80	9760	122
TL-11520	3535	36	800	90	10836	120

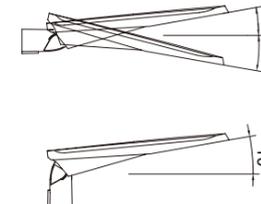
Order code	Chip	LED QTY	Current (mA)	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-11521	5050	64	350	65	9262	142
TL-11522	5050	64	500	95	13015	137
TL-11523	5050	64	620	120	16080	134
TL-11524	5050	64	700	140	18480	132
TL-11525	5050	64	800	160	20640	129
TL-11526	3535	64	350	65	9425	145
TL-11527	3535	64	500	95	13015	137
TL-11528	3535	64	620	120	15840	132
TL-11529	3535	64	700	140	17500	125
TL-11530	3535	64	800	160	19680	123



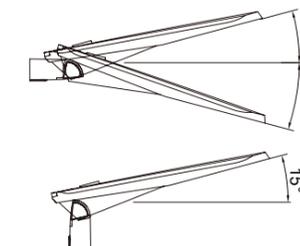
TL-SLF-LED15
Aurora L



TL-SLF-LED15
Camera Aurora
Sky eye



TL-SLF-LED15B/15C



TL-SLF-LED15A/15

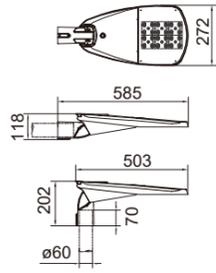
Order code	Chip	LED QTY	Current (mA)	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-11531	5050	120	350	125	17625	141
TL-11532	5050	120	500	175	23975	137
TL-11533	5050	120	700	250	33000	132
TL-11534	5050	120	730	270	35100	130
TL-11535	3535	120	350	125	17625	141
TL-11536	3535	120	500	175	24500	140
TL-11537	3535	120	700	250	33000	132
TL-11538	3535	120	730	270	34020	126

Order code	Chip	LED QTY	Current (mA)	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-11539	5050	64	350	65	9262	142
TL-11540	5050	64	500	95	13015	137
TL-11541	5050	64	620	120	16080	134
TL-11542	5050	64	700	140	18480	132
TL-11543	5050	64	800	160	20640	129
TL-11544	3535	64	350	65	9419	145
TL-11545	3535	64	500	95	13055	137
TL-11546	3535	64	620	120	15789	132
TL-11547	3535	64	700	140	17542	125
TL-11548	3535	64	800	160	19647	123

Calculations based on 4000K with T2 optic and no Light Output Reduction (LOR) factor applied

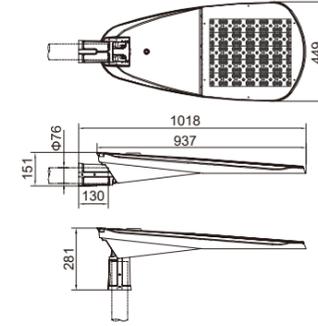
* 5050: LUMILEDS 5050; 3535: OSRAM SQUARE; 3030: LUMILEDS 3030

CODE



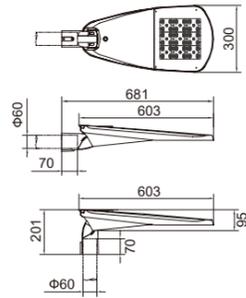
TL-SLF-LED15C
Aurora XS

Order code	Chip	LED QTY	Lens Type	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-11549	5050	18	6	40	6000	143
TL-11550	5050	36	6	60	9000	149
TL-11551	3535	18	6	40	6000	119
TL-11552	3535	36	6	60	9000	126



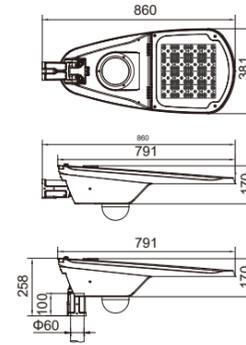
TL-SLF-LED15
Aurora L

Order code	Chip	LED QTY	Lens Type	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-11563	5050	150	6	200	30000	150
TL-11564	5050	180	6	240	36000	150
TL-11565	5050	210	6	320	48000	150
TL-11566	3535	150	6	200	30000	150
TL-11567	3535	180	6	240	36000	150
TL-11568	3535	180	6	320	48000	150



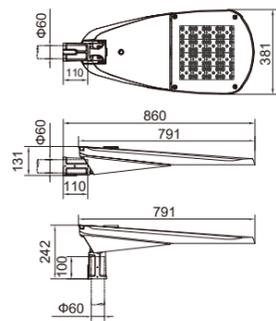
TL-SLF-LED15B
Aurora S

Order code	Chip	LED QTY	Lens Type	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-11553	5050	36	6	80	12000	150
TL-11554	5050	54	6	120	18000	150
TL-11555	5050	54	6	150	22500	150
TL-11556	3535	36	6	80	12000	150
TL-11557	3535	54	6	120	18000	150
TL-11558	3535	54	6	150	22500	150



TL-SLF-LED15
Camera Aurora
Sky eye

Order code	Chip	LED QTY	Lens Type	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-11569	5050	72	6	150	22500	150
TL-11570	5050	96	6	200	30000	150
TL-11571	3535	72	6	150	22500	150
TL-11572	3535	96	6	200	30000	150



TL-SLF-LED15A
Aurora M

Order code	Chip	LED QTY	Lens Type	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-11559	5050	72	6	150	22500	150
TL-11560	5050	96	6	200	30000	150
TL-11561	3535	72	6	150	22500	150
TL-11562	3535	96	6	200	30000	150

Calculations based on 4000K with T2 optic and no Light Output Reduction (LOR) factor applied
* 5050: LUMILEDS 5050; 3535: OSRAM SQUARE; 3030: LUMILEDS 3030

TITAN



TITAN is more powerful in heat sinking with delicate structure of radiating rib.

- 5 sizes for different wattage from 30W to 280W
- Super luminaire efficiency up to 150 lm/w
- Good Thermal control system to ensure long lifetime
- Tool-free design for easy installation and maintenance
- Low wind area and drop protector

FIVE SIZE

20W~60W CxS:0.077m ² ø60mm XS	40W~60W CxS:0.097m ² ø76mm / ø60mm XS	80W~150W CxS:0.158m ² ø76mm / ø60mm S	150W~200W CxS:0.217m ² ø76mm / ø60mm M	240W~300W CxS:0.334m ² ø76mm / ø60mm L
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Optics available

3535/5050 							
3030 							

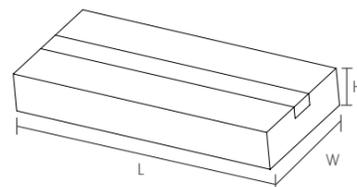


Technical information

Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70, Ta 25 C	Driver isolation	Class I or Class II
Wattags	20~300W	Control dimming	DALI / 1-10V / Timing / PWM
Light efficacy	Up to 164lm/W	Operating temperature	-35°C~50°C / 10% ~ 95% (humidity)
CRI	≥ 70 or ≥ 80	Body parts material	ADC12 (standard) / LM6 (option)
Color temperature	3000K, 4000K, Amber color	Optic	PC (standard) / PMMA (option)
Operation voltage	AC 90-305V or AC 220-240V	Screen	Flat tempered glass 5mm thickness
Frequency	50 / 60Hz	Gasket	Silicone
Power factor	≥0.95 cos	Color stability	3 or 5 MacAdam steps

Packing Information

Model	Carton Size(L*W*H)	QTY/Carton	N.W.(kg)	G.W.(kg)
XS TL-SLF-LED10D	520*245*140mm	1	3.6	3.9
XS TL-SLF-LED10B	605*315*140mm	1	4.7	5.6
S TL-SLF-LED10C	745*390*130mm	1	7.1	8.6
M TL-SLF-LED10A	830*435*145mm	1	9.7	11.5
L TL-SLF-LED10	1015*515*155mm	1	15.3	18.1



TITAN

TL-SLF-LED10D(XXS)



TL-SLF-LED10B(XS)



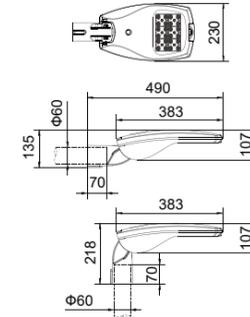
TL-SLF-LED10C(S)



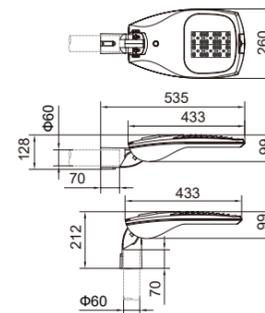
TL-SLF-LED10A(M)



TL-SLF-LED10(L)



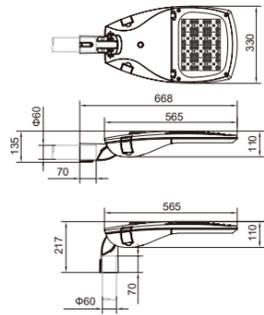
TL-SLF-LED10D
Titan XXS



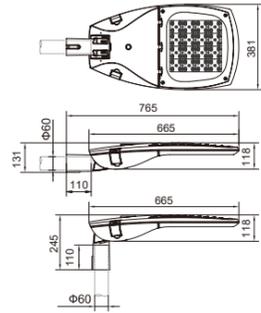
TL-SLF-LED10B
Titan XS

Order code	Chip	LED QTY	Lens Type	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-11009	5050	12	6	20	3000	150
TL-11010	5050	24	6	40	6000	150
TL-11011	5050	36	6	60	9000	150

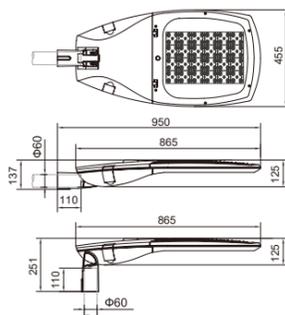
Order code	Chip	LED QTY	Lens Type	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-11020	5050	18	6	40	6000	150
TL-11021	5050	36	6	60	9000	150
TL-11022	3030	42	14	40	5200	130
TL-11023	3030	84	14	60	7800	130



TL-SLF-LED10C
Titan S



TL-SLF-LED10A
Titan M

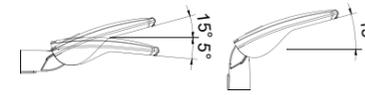


TL-SLF-LED10 Titan
L

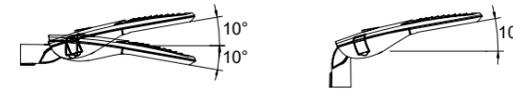
Order code	Chip	LED QTY	Lens Type	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-11032	5050	54	6	80	12000	150
TL-11033	5050	72	6	120	18000	150
TL-11034	5050	72	6	150	22500	150
TL-11035	3030	126	14	80	10400	130
TL-11036	3030	168	14	120	15600	130
TL-11037	3030	168	14	150	19500	130

Order code	Chip	LED QTY	Lens Type	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-11046	5050	72	6	150	22500	150
TL-11047	5050	96	6	200	30000	150
TL-11048	3030	168	14	150	19500	130
TL-11049	3030	224	14	200	26000	130

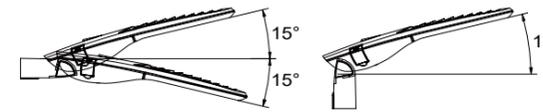
Order code	Chip	LED QTY	Lens Type	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-11058	5050	120	6	240	36000	150
TL-11059	5050	144	6	300	45000	150
TL-11060	3030	280	14	240	31200	130
TL-11061	3030	336	14	300	39000	130



TL-SLF-LED10D



TL-SLF-LED10B



TL-SLF-LED10 10A 10C

* 5050: LUMILEDS 5050; 3535: CREE XPG3; 3030: LUMILEDS 3030

lm: This data is tested under normal working condition, the actual data will depends on environment condition, optics/diffuser and CCT.



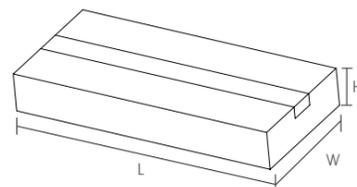


Technical information

Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70,Ta 25 C	Driver isolation	Class I or Class II
Wattags	30~300W	Control dimming	DALI / 1-10V / Timing / PWM
Light efficacy	Up to 150lm/W	Operating temperature	-35°C~50°C / 10% ~ 95% (humidity)
CRI	≥ 70 or ≥ 80	Body parts material	ADC12 (standard) / LM6 (option)
Color temperature	3000K, 4000K, Amber color	Optic	PC (standard) / PMMA (option)
Operation voltage	AC 90-305V or AC 220-240V	Screen	Flat tempered glass 5mm thickness
Frequency	50 / 60Hz	Gasket	Silicone
Power factor	≥0.95 cos	Color stability	3 or 5 MacAdam steps

Packing Information

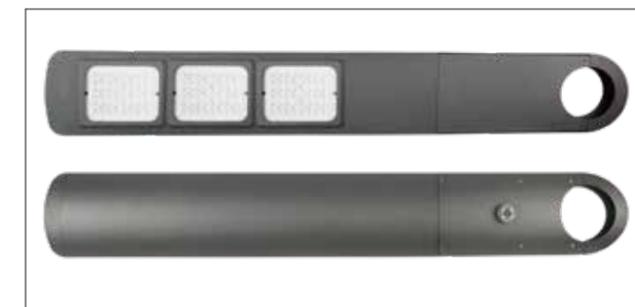
Model	Carton Size(L*W*H)	QTY/Carton	N.W.(kg)	G.W.(kg)
S TL-SLF-LED38-S	1465*315*145mm	1	18.5	19.5
M TL-SLF-LED38-M	1765*315*145mm	1	23.5	25.0
L TL-SLF-LED38-L	2165*315*145mm	1	28.5	30.5

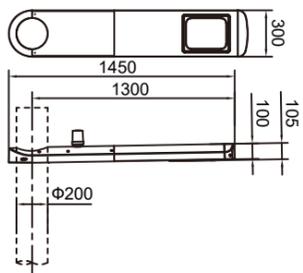


Optics available



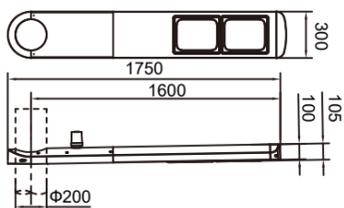
Details





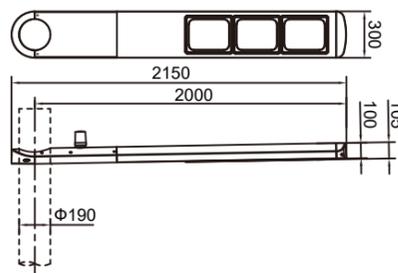
TL-SLF-LED38S
Iris S

Order code	Chip	LED QTY	Lens Type	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-13801	5050	16	4	30	4500	150
TL-13802	5050	24	4	40	6000	150
TL-13803	5050	24	4	50	7500	150
TL-13804	5050	36	4	60	9000	150
TL-13805	5050	36	4	80	12000	150
TL-13806	5050	54	4	100	15000	150



TL-SLF-LED38M
Iris M

Order code	Chip	LED QTY	Lens Type	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-13807	5050	72	4	120	18000	150
TL-13808	5050	72	4	150	22500	150
TL-13809	5050	108	4	180	27000	150
TL-13810	5050	108	4	200	30000	150



TL-SLF-LED38L
Iris L

Order code	Chip	LED QTY	Lens Type	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-13811	5050	108	4	220	33000	150
TL-13812	5050	108	4	240	36000	150
TL-13813	5050	162	4	280	42000	150
TL-13814	5050	162	4	300	45000	150

* 5050: LUMILEDS 5050; 3535: CREE XPG3; 3030: LUMILEDS 3030

Lm: This data is tested under normal working condition, the actual data will depends on environment condition, optics/diffuser and CCT.



TL-SLF-LED92

10W 30W
CxS 0.028m²
76mm 60mm

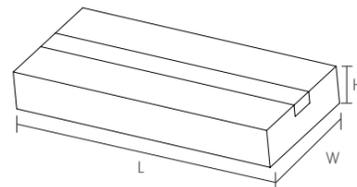


Technical information

Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70, Ta 25 C	Driver isolation	Class I
Wattags	10~30W	Control dimming	1-10V / Timing / PWM
Light efficacy	Up to 120lm/W	Operating temperature	-35°C~50°C / 10% ~ 95% (humidity)
CRI	≥ 70 or ≥ 80	Body parts material	ADC12 (standard)
Color temperature	3000K, 4000K, Amber color	Optic	PC (standard) / PMMA (option)
Operation voltage	AC 90-305V or AC 220-240V	Cover	PC(standard)
Frequency	50 / 60Hz	Gasket	Silicone
Power factor	≥0.95 cos	Color stability	3 or 5 MacAdam steps

Packing Information

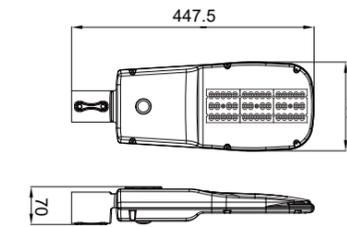
Model	Carton Size(L*W*H)	QTY/Carton	N.W.(kg)	G.W.(kg)
TL-SLF-LED92	595*275*145mm	1	2.3	3.4



Optics available



Details



Order code	Chip	LED QTY	Lens Type	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-19201	3030	28	14	10	1300	130
TL-19202	3030	42	14	20	2600	130
TL-19203	3030	42	14	30	3900	130

* 5050: LUMILEDS 5050; 3535: CREE XPG3; 3030: LUMILEDS 3030

Lm: This data is tested under normal working condition, the actual data will depends on environment condition, optics/diffuser and CCT.

TL-SLF-LED08

10W 20W
CxS 0.030m²
76mm 60mm

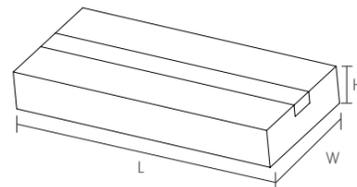


Technical information

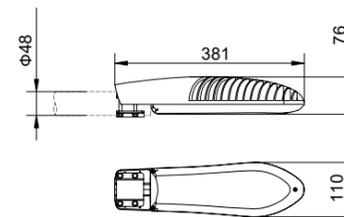
Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70,Ta 25 C	Driver isolation	Class I
Wattags	10~20W	Control dimming	1-10V / Timing / PWM
Light efficacy	Up to 110lm/W	Operating temperature	-35°C~50°C / 10% ~ 95% (humidity)
CRI	≥ 70 or ≥ 80	Body parts material	ADC12 (standard)
Color temperature	3000K, 4000K, Amber color	Optic	PC (standard) / PMMA (option)
Operation voltage	AC 90-305V or AC 220-240V	Cover	PC(standard)
Frequency	50 / 60Hz	Gasket	Silicone
Power factor	≥0.95 cos	Color stability	3 or 5 MacAdam steps

Packing Information

Model	Carton Size(L*W*H)	QTY/Carton	N.W.(kg)	G.W.(kg)
TL-SLF-LED08	390*120*85mm	1	1.6	2.5



Details



Order code	Chip	LED QTY	Lens Type	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-10801	3030	14	14	10	1300	130
TL-10802	3030	28	14	20	2600	130

* 5050: LUMILEDS 5050; 3535: CREE XPG3; 3030: LUMILEDS 3030

Lm: This data is tested under normal working condition, the actual data will depends on environment condition, optics/diffuser and CCT.

TWO SIZE

20W~60W
CxS:0.030m²
ø76mm / ø60mm

S



80W~120W
CxS:0.050m²
ø76mm / ø60mm

L

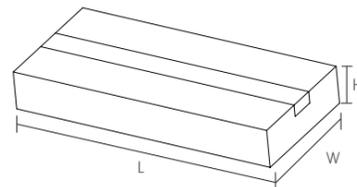


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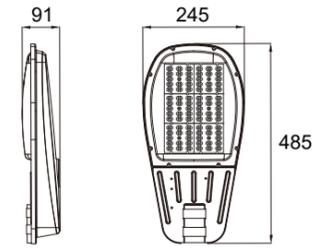
Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70,Ta 25 C	Driver isolation	Class I
Wattags	20~120W	Control dimming	1-10V / Timing / PWM
Light efficacy	Up to 125lm/W	Operating temperature	-35°C~50°C / 10% ~ 95% (humidity)
CRI	≥ 70 or ≥ 80	Body parts material	Stamping steel
Color temperature	3000K, 4000K, Amber color	Optic	PC (standard)
Operation voltage	AC 90-305V	Cover	PC(standard)
Frequency	50 / 60Hz	Gasket	Silicone
Power factor	≥0.95 cos	Color stability	3 or 5 MacAdam steps

Packing Information

Model	Carton Size(L*W*H)	QTY/Carton	N.W.(kg)	G.W.(kg)
S TL-SLF-LED91S	595*275*145mm	1	5.6	7.1
M TL-SLF-LED91M	810*368*166mm	1	7.5	8.3

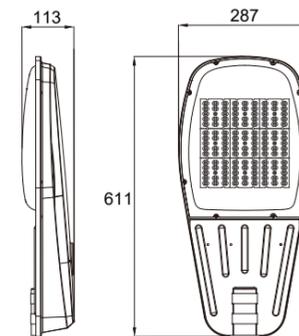


Optics available



TL-SLF-LED91S
Cleft S

Order code	Chip	LED QTY	Lens Type	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-19101	3030	42	14	20	2600	130
TL-19102	3030	56	14	40	5200	130
TL-19103	3030	84	14	60	7800	130



TL-SLF-LED91M
Cleft M

Order code	Chip	LED QTY	Lens Type	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-19104	3030	84	14	80	10400	130
TL-19105	3030	126	14	100	13000	130
TL-19106	3030	126	14	120	15600	130

* 5050: LUMILEDS 5050; 3535: CREE XPG3; 3030: LUMILEDS 3030

Lm: This data is tested under normal working condition, the actual data will depends on environment condition, optics/diffuser and CCT.

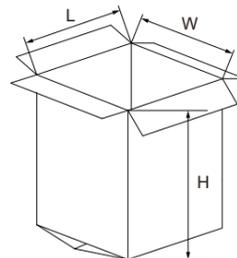


Technical information

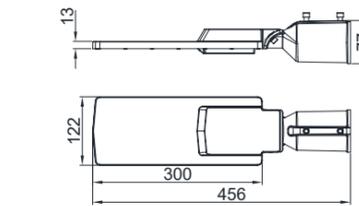
Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70, Ta 25 C	Driver isolation	Class I
Wattags	30~150W	Control dimming	1-10V / Timing
Light efficacy	Up to 130lm/W	Operating temperature	-20°C~50°C / 10% ~ 90% (humidity)
CRI	≥ 70 or ≥ 80	Body parts material	Die cast Aluminum
Color temperature	3000K, 4000K, 5000K, 6000K	Optic	PC (standard) / PMMA (option)
Operation voltage	AC 100-240V	Screen	Flat tempered glass 5mm thickness
Frequency	50 / 60Hz	Gasket	Silicone
Power factor	≥0.9 cos	Color stability	5 MacAdam steps

Packing Information

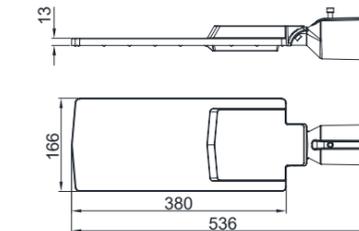
Model	Carton Size(L*W*H)	QTY/Carton	N.W.(kg)	G.W.(kg)
S TL-SLF-E04S	480*150*100mm	1	1.2	1.5
M TL-SLF-E04M	565*200*100mm	1	1.7	2.1
L TL-SLF-E04L	670*220*100mm	1	2.5	3.1



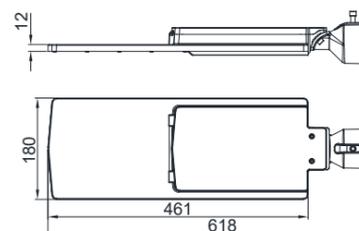
Optics available



TL-SLF-E04S



TL-SLF-E04M



TL-SLF-E04L

Order code	Chip	LED QTY	Lens Type	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-EI0401	3030	90	/	30	3900	130
TL-EI0402	3030	90	/	50	6500	130
TL-EI0403	3030	90	/	60	7800	130

Order code	Chip	LED QTY	Lens Type	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-EI0404	3030	156	/	80	10400	130
TL-EI0405	3030	156	/	100	13000	130

Order code	Chip	LED QTY	Lens Type	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-EI0406	3030	175	/	120	15600	130
TL-EI0407	3030	175	/	150	19500	130

* 3030: Philips 3030

Lm: This data is tested under normal working condition, the actual data will depends on environment condition, optics/diffuser and CCT.

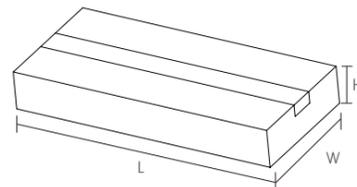


Technical information

Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70, Ta 25 C	Driver isolation	Class I or Class II
Wattags	30~200W	Control dimming	1-10V / Timing
Light efficacy	Up to 150lm/W	Operating temperature	-40°C~50°C / 10% ~ 90% (humidity)
CRI	≥ 70 or ≥ 80	Body parts material	Die cast Aluminum
Color temperature	3000K, 4000K, 5000K, 6000K	Optic	PC (standard) / PMMA (option)
Operation voltage	AC 100-240V	Screen	Flat tempered glass 5mm thickness
Frequency	50 / 60Hz	Gasket	Silicone
Power factor	≥0.9 cos	Color stability	5 MacAdam steps

Packing Information

Model	Carton Size(L*W*H)	QTY/Carton	N.W.(kg)	G.W.(kg)
S TL-SLF-E40S	598*258*175mm	1	3.2	4.2
M TL-SLF-E40M	655*295*190mm	1	4.2	5.2
L TL-SLF-E40L	780*385*188mm	1	7.2	8.2

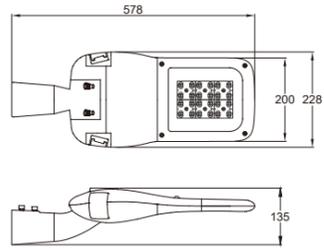


Optics available



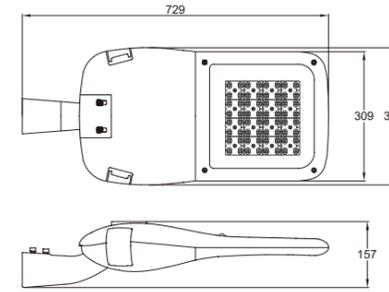
Details





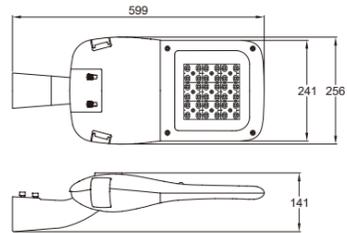
TL-SLF-E40S

Order code	Chip	LED QTY	Lens Type	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-EI4001	5050	12	4	20	3000	150
TL-EI4002	5050	16	4	30	4500	150
TL-EI4003	5050	24	4	40	6000	150
TL-EI4004	5050	24	4	50	7500	150
TL-EI4005	5050	24	4	60	9000	150
TL-EI4006	3030	56	14	40	5200	130
TL-EI4007	3030	56	14	50	6500	130
TL-EI4008	3030	84	14	60	7800	130
TL-EI4009	3030	84	14	70	9100	130
TL-EI4010	3030	84	14	80	10400	130



TL-SLF-E40L

Order code	Chip	LED QTY	Lens Type	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-EI4024	5050	48	4	100	15000	150
TL-EI4025	5050	48	4	110	16500	150
TL-EI4026	5050	48	4	120	18000	150
TL-EI4027	5050	64	4	120	18000	150
TL-EI4028	5050	64	4	130	19500	150
TL-EI4029	5050	64	4	140	21000	150
TL-EI4030	5050	64	4	150	22500	150
TL-EI4031	3030	168	14	160	20800	130
TL-EI4032	3030	168	14	170	22100	130
TL-EI4033	3030	224	14	180	23400	130
TL-EI4034	3030	224	14	190	24700	130
TL-EI4035	3030	224	14	200	26000	130



TL-SLF-E40M

Order code	Chip	LED QTY	Lens Type	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-EI4011	5050	24	4	40	6000	150
TL-EI4012	5050	24	4	50	7500	150
TL-EI4013	5050	24	4	60	9000	150
TL-EI4014	5050	36	4	60	9000	150
TL-EI4015	5050	36	4	70	10500	150
TL-EI4016	5050	36	4	80	12000	150
TL-EI4017	5050	36	4	90	13500	150
TL-EI4018	3030	84	14	60	7800	130
TL-EI4019	3030	84	14	70	9100	130
TL-EI4020	3030	84	14	80	10400	130
TL-EI4021	3030	126	14	90	11700	130
TL-EI4022	3030	126	14	100	13000	130
TL-EI4023	3030	126	14	110	14300	130
TL-EI4024	3030	126	14	120	15600	130

* 3030: Philips 3030; 5050: Philips 5050

Lm: This data is tested under normal working condition, the actual data will depends on environment condition, optics/diffuser and CCT.



70

70

GARDEN LIGHT

Patented design



Atlas
TL-GLP-LED27A



Sodor
TL-GLP-LED27F



Mica
TL-GLP-LED27D



Drone
TL-GLP-LED27H



Rud
TL-GLP-LED27B



Mad
TL-GLP-LED27J



Luna
TL-GLP-LED27G

TL-GLP-LED27A

ø76mm

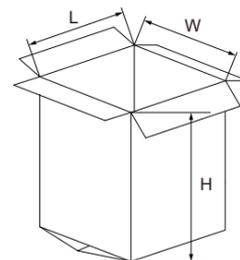


Technical information

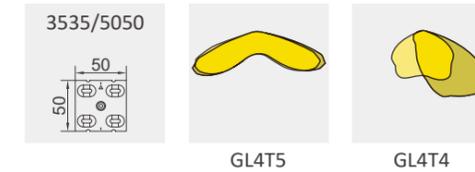
Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70, Ta 25 C	Driver isolation	Class I or Class II
Wattags	20~100W	Control dimming	DALI / 1-10V / Timing / PWM
Light efficacy	Up to 129lm/W	Operating temperature	-35°C~50°C / 10% ~ 95% (humidity)
CRI	≥ 70 or ≥ 80	Body parts material	Die cast Aluminum
Color temperature	3000K, 4000K, Amber color	Optic	PC (standard) / PMMA (option)
Operation voltage	AC 90-305V or AC 220-240V	Screen	Flat tempered glass 5mm thickness
Frequency	50 / 60Hz	Gasket	Silicone
Power factor	≥0.95 cos	Color stability	3 or 5 MacAdam steps

Packing Information

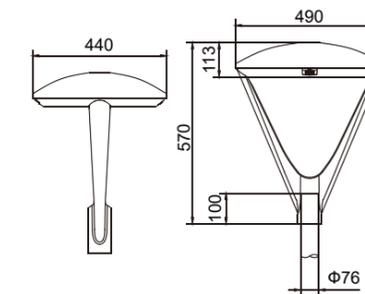
Model	Carton Size(L*W*H)	QTY/Carton	N.W.(kg)	G.W.(kg)
TL-GLP-LED27A	505*455*600mm	1	10.0	13.8
Bulk items	505*455*145mm	1	10.0	13.8



Optics available



Details



Order code	Chip	LED QTY	Lens Type	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-22701	5050	16	4	20	2560	128
TL-22702	5050	16	4	30	3840	128
TL-22703	5050	24	4	40	5120	128
TL-22704	5050	24	4	50	6400	128
TL-22705	5050	32	4	60	7740	129
TL-22706	5050	32	4	70	8050	115
TL-22707	5050	48	4	80	9200	115
TL-22708	5050	48	4	90	10350	115
TL-22709	5050	48	4	100	11500	115

Accessories - Adapter



Spigot size 76 to 60 mm

* 5050: LUMILEDS 5050; 3535: CREE XPG3; 3030: LUMILEDS 3030

Lm: This data is tested under normal working condition, the actual data will depends on environment condition, optics/diffuser and CCT.

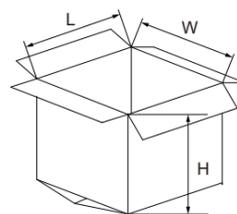


Technical information

Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70, Ta 25 C	Driver isolation	Class I or Class II
Wattags	20~100W	Control dimming	DALI / 1-10V / Timing / PWM
Light efficacy	Up to 143lm/W	Operating temperature	-35°C~50°C / 10% ~ 95% (humidity)
CRI	≥ 70 or ≥ 80	Body parts material	Die cast Aluminum
Color temperature	3000K, 4000K, Amber color	Optic	PC (standard) / PMMA (option)
Operation voltage	AC 90-305V or AC 220-240V	Screen	Flat tempered glass 5mm thickness
Frequency	50 / 60Hz	Gasket	Silicone
Power factor	≥0.95 cos	Color stability	3 or 5 MacAdam steps

Packing Information

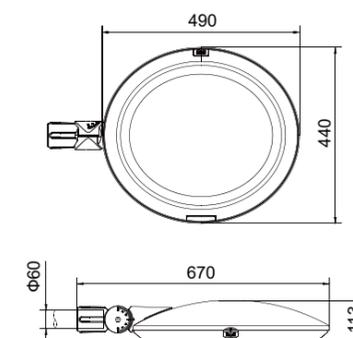
Model	Carton Size(L*W*H)	QTY/Carton	N.W.(kg)	G.W.(kg)
TL-GLP-LED27B	505*455*260mm	1	9.3	11.7



Optics available



Details



Order code	Chip	LED QTY	Lens Type	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-22710	5050	16	4	20	2560	128
TL-22711	5050	16	4	30	3840	128
TL-22712	5050	24	4	40	5120	128
TL-22713	5050	24	4	50	6400	128
TL-22714	5050	32	4	60	7740	129
TL-22715	5050	32	4	70	8050	115
TL-22716	5050	48	4	80	9200	115
TL-22717	5050	48	4	90	10350	115
TL-22718	5050	48	4	100	11500	115

* 5050: LUMILEDS 5050; 3535: CREE XPG3; 3030: LUMILEDS 3030

Lm: This data is tested under normal working condition, the actual data will depends on environment condition, optics/diffuser and CCT.



TL-GLP-LED27F

∅76mm

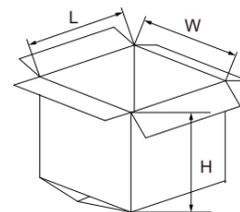


Technical information

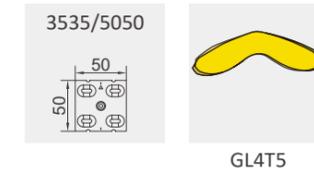
Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70, Ta 25 C	Driver isolation	Class I or Class II
Wattags	20~100W	Control dimming	DALI / 1-10V / Timing / PWM
Light efficacy	Up to 130lm/W	Operating temperature	-35°C~50°C / 10% ~ 95% (humidity)
CRI	≥ 70 or ≥ 80	Body parts material	Die cast Aluminum
Color temperature	3000K, 4000K, Amber color	Optic	PC (standard) / PMMA (option)
Operation voltage	AC 90-305V or AC 220-240V	Screen	PC(standard)
Frequency	50 / 60Hz	Gasket	Silicone
Power factor	≥0.95 cos	Color stability	3 or 5 MacAdam steps

Packing Information

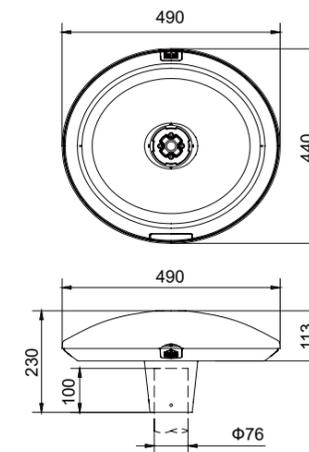
Model	Carton Size(L*W*H)	QTY/Carton	N.W.(kg)	G.W.(kg)
TL-GLP-LED27F	505*455*260mm	1	7.15	11.7



Optics available



Details



Order code	Chip	LED QTY	Lens Type	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-22719	5050	16	4	20	2560	128
TL-22720	5050	16	4	30	3840	128
TL-22721	5050	24	4	40	5120	128
TL-22722	5050	24	4	50	6400	128
TL-22723	5050	32	4	60	7740	129
TL-22724	5050	32	4	70	8050	115
TL-22725	5050	48	4	80	9200	115
TL-22726	5050	48	4	90	10350	115
TL-22727	5050	48	4	100	11500	115

Accessories - Adapter



Spigot size 76 to 60 mm

* 5050: LUMILEDS 5050; 3535: CREE XPG3; 3030: LUMILEDS 3030

Lm: This data is tested under normal working condition, the actual data will depends on environment condition, optics/diffuser and CCT.

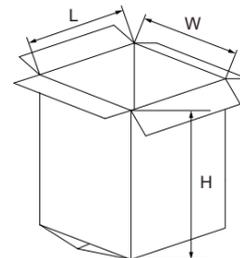


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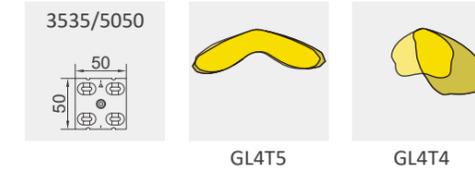
Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70, Ta 25 C	Driver isolation	Class I or Class II
Wattags	20~100W	Control dimming	DALI / 1-10V / Timing / PWM
Light efficacy	Up to 135lm/W	Operating temperature	-35°C~50°C / 10% ~ 95% (humidity)
CRI	≥ 70 or ≥ 80	Body parts material	Die cast Aluminum
Color temperature	3000K, 4000K, Amber color	Optic	PC (standard) / PMMA (option)
Operation voltage	AC 90-305V or AC 220-240V	Screen	Flat tempered glass 5mm thickness
Frequency	50 / 60Hz	Gasket	Silicone
Power factor	≥0.95 cos	Color stability	3 or 5 MacAdam steps

Packing Information

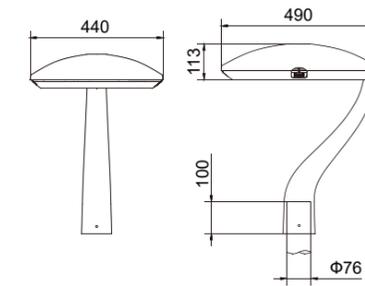
Model	Carton Size(L*W*H)	QTY/Carton	N.W.(kg)	G.W.(kg)
TL-GLP-LED27D	505*455*630mm	1	9.7	11.3



Optics available



Details



Order code	Chip	LED QTY	Lens Type	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-22728	5050	16	4	20	2560	128
TL-22729	5050	16	4	30	3840	128
TL-22730	5050	24	4	40	5120	128
TL-22731	5050	24	4	50	6400	128
TL-22732	5050	32	4	60	7740	129
TL-22733	5050	32	4	70	8050	115
TL-22734	5050	48	4	80	9200	115
TL-22735	5050	48	4	90	10350	115
TL-22736	5050	48	4	100	11500	115

Accessories - Adapter



Spigot size 76 to 60 mm

* 5050: LUMILEDS 5050; 3535: CREE XPG3; 3030: LUMILEDS 3030

Lm: This data is tested under normal working condition, the actual data will depends on environment condition, optics/diffuser and CCT.

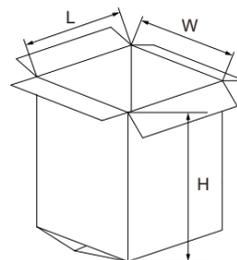


Technical information

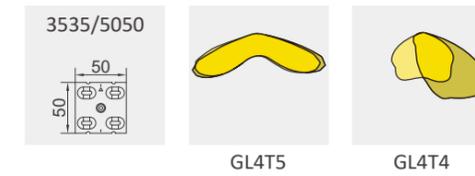
Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70, Ta 25 C	Driver isolation	Class I or Class II
Wattags	20~60W	Control dimming	DALI / 1-10V / Timing / PWM
Light efficacy	Up to 140lm/W	Operating temperature	-35°C~50°C / 10% ~ 95% (humidity)
CRI	≥ 70 or ≥ 80	Body parts material	Die cast Aluminum
Color temperature	3000K, 4000K, Amber color	Optic	PC (standard) / PMMA (option)
Operation voltage	AC 90-305V or AC 220-240V	Screen	Flat tempered glass 5mm thickness
Frequency	50 / 60Hz	Gasket	Silicone
Power factor	≥0.95 cos	Color stability	3 or 5 MacAdam steps

Packing Information

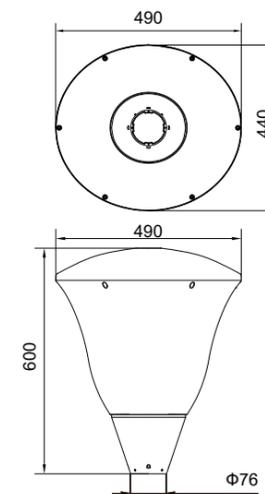
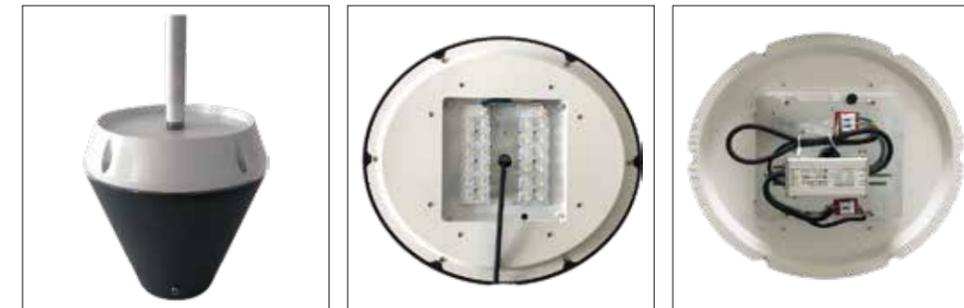
Model	Carton Size(L*W*H)	QTY/Carton	N.W.(kg)	G.W.(kg)
TL-GLP-LED27G	505*455*630mm	1	8.7	11.3



Optics available



Details



Order code	Chip	LED QTY	Lens Type	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-22737	5050	16	4	20	2560	128
TL-22738	5050	16	4	30	3840	128
TL-22739	5050	24	4	40	5120	128
TL-22740	5050	24	4	50	6400	128
TL-22741	5050	32	4	60	7740	129
TL-22742	5050	32	4	70	8050	115
TL-22743	5050	48	4	80	9200	115
TL-22744	5050	48	4	90	10350	115
TL-22745	5050	48	4	100	11500	115

Accessories - Adapter



Spigot size 76 to 60 mm

* 5050: LUMILEDS 5050; 3535: CREE XPG3; 3030: LUMILEDS 3030

Lm: This data is tested under normal working condition, the actual data will depends on environment condition, optics/diffuser and CCT.

TL-GLP-LED27H

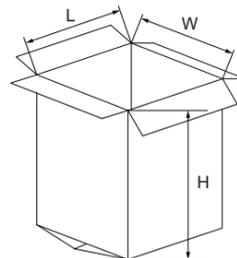


Technical information

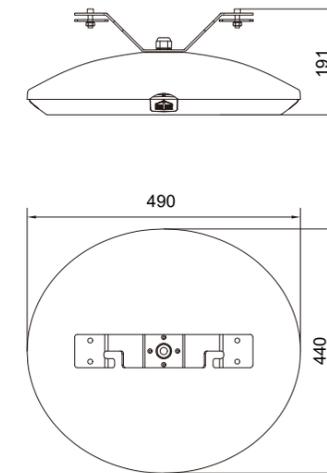
Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70, Ta 25 C	Driver isolation	Class I or Class II
Wattags	20~100W	Control dimming	DALI / 1-10V / Timing / PWM
Light efficacy	Up to 140lm/W	Operating temperature	-35°C~50°C / 10% ~ 95% (humidity)
CRI	≥ 70 or ≥ 80	Body parts material	Die cast Aluminum
Color temperature	3000K, 4000K, Amber color	Optic	PC (standard) / PMMA (option)
Operation voltage	AC 90-305V or AC 220-240V	Screen	Flat tempered glass 5mm thickness
Frequency	50 / 60Hz	Gasket	Silicone
Power factor	≥0.95 cos	Color stability	3 or 5 MacAdam steps

Packing Information

Model	Carton Size(L*W*H)	QTY/Carton	N.W.(kg)	G.W.(kg)
TL-GLP-LED27H	515*455*220mm	1	10.0	11.3



Optics available



Order code	Chip	LED QTY	Lens Type	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-22746	5050	16	4	20	2560	128
TL-22747	5050	16	4	30	3840	128
TL-22748	5050	24	4	40	5120	128
TL-22749	5050	24	4	50	6400	128
TL-22750	5050	32	4	60	7740	129
TL-22751	5050	32	4	70	8050	115
TL-22752	5050	48	4	80	9200	115
TL-22753	5050	48	4	90	10350	115
TL-22754	5050	48	4	100	11500	115

* 5050: LUMILEDS 5050; 3535: CREE XPG3; 3030: LUMILEDS 3030

Lm: This data is tested under normal working condition, the actual data will depends on environment condition, optics/diffuser and CCT.



TL-GLP-LED27J

ø76*120mm

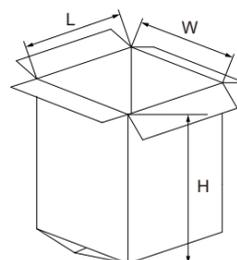


Technical information

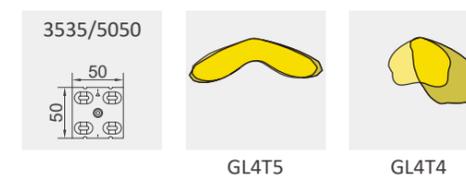
Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70, Ta 25 C	Driver isolation	Class I or Class II
Wattags	20~100W	Control dimming	DALI / 1-10V / Timing / PWM
Light efficacy	Up to 143lm/W	Operating temperature	-35°C~50°C / 10% ~ 95% (humidity)
CRI	≥ 70 or ≥ 80	Body parts material	Die cast Aluminum
Color temperature	3000K, 4000K, Amber color	Optic	PC (standard) / PMMA (option)
Operation voltage	AC 90-305V or AC 220-240V	Screen	Flat tempered glass 5mm thickness
Frequency	50 / 60Hz	Gasket	Silicone
Power factor	≥0.95 cos	Color stability	3 or 5 MacAdam steps

Packing Information

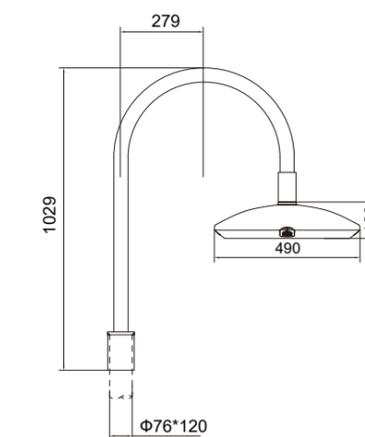
Model	Carton Size(L*W*H)	QTY/Carton	N.W.(kg)	G.W.(kg)
TL-GLP-LED27J	505*455*140mm	1	10.0	11.3



Optics available



Details



Order code	Chip	LED QTY	Lens Type	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-22755	5050	16	4	20	2560	128
TL-22756	5050	16	4	30	3840	128
TL-22757	5050	24	4	40	5120	128
TL-22758	5050	24	4	50	6400	128
TL-22759	5050	32	4	60	7740	129
TL-22760	5050	32	4	70	8050	115
TL-22761	5050	48	4	80	9200	115
TL-22762	5050	48	4	90	10350	115
TL-22763	5050	48	4	100	11500	115

Accessories - Adapter



Spigot size 76 to 60 mm

* 5050: LUMILEDS 5050; 3535: CREE XPG3; 3030: LUMILEDS 3030

Lm: This data is tested under normal working condition, the actual data will depends on environment condition, optics/diffuser and CCT.

GARDEN LIGHT

Patented design



Globo
TL-GLP-LED95



Guadua
TL-GLP-LED95B



Bumble
TL-GLP-LED95A



Wax
TL-GLB-LED95D

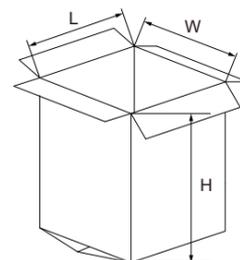


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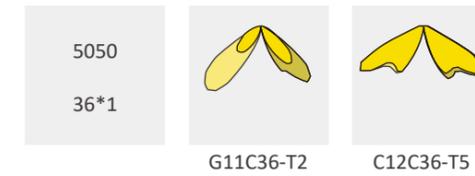
Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70,Ta 25 C	Driver isolation	Class I or Class II
Wattags	30~50W	Control dimming	DALI / 1-10V / Timing / PWM
Light efficacy	Up to 130lm/W	Operating temperature	-35°C~50°C / 10% ~ 95% (humidity)
CRI	≥ 70 or ≥ 80	Base parts material	Die cast Aluminum
Color temperature	3000K, 4000K, Amber color	Optic	PC (standard) / PMMA (option)
Operation voltage	AC 90-305V or AC 220-240V	Ball material	PC
Frequency	50 / 60Hz	Gasket	Silicone
Power factor	≥0.95 cos	Color stability	3 or 5 MacAdam steps

Packing Information

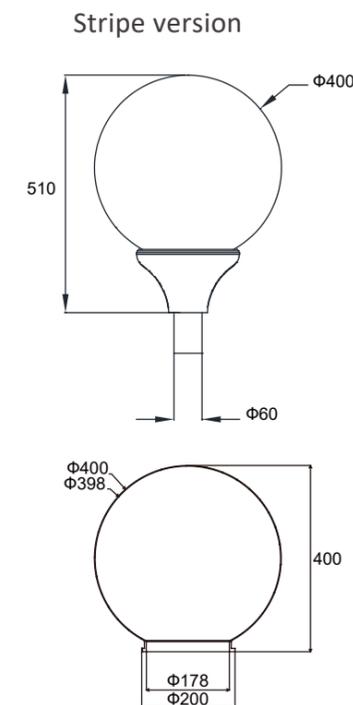
Model	Carton Size(L*W*H)	QTY/Carton	N.W.(kg)	G.W.(kg)
TL-GLP-LED95	435*435*530mm	1	4.9	6.9



Optics available



Other option



Order code	Chip	LED QTY	Lens Type	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-29501	5050	24	24	30	3900	130
TL-29502	5050	30	30	40	5200	130
TL-29503	5050	36	36	50	6500	130

* 5050: LUMILEDS 5050; 3535: CREE XPG3; 3030: LUMILEDS 3030

Lm: This data is tested under normal working condition, the actual data will depends on environment condition, optics/diffuser and CCT.

TL-GLP-LED95B

ø60mm



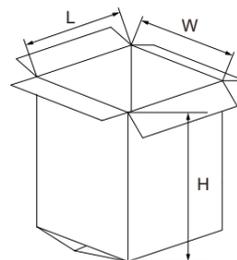
CE CB IP65 IK08

Technical information

Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70,Ta 25 C	Driver isolation	Class I or Class II
Wattags	30~50W	Control dimming	DALI / 1-10V / Timing / PWM
Light efficacy	Up to 130lm/W	Operating temperature	-35°C~50°C / 10% ~ 95% (humidity)
CRI	≥ 70 or ≥ 80	Body parts material	Die cast Aluminum
Color temperature	3000K, 4000K, Amber color	Optic	PC (standard) / PMMA (option)
Operation voltage	AC 90-305V or AC 220-240V	Screen	PC
Frequency	50 / 60Hz	Gasket	Silicone
Power factor	≥0.95 cos	Color stability	3 or 5 MacAdam steps

Packing Information

Model	Carton Size(L*W*H)	QTY/Carton	N.W.(kg)	G.W.(kg)
TL-GLP-LED95B	520*460*600mm	1	3.9	5.2



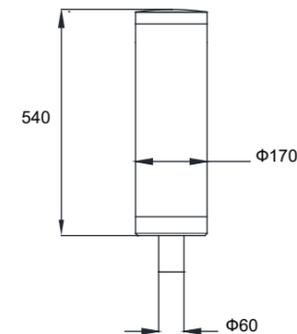
Optics available



5050
36*1

G11C36-T3

C12C36-T5



Order code	Chip	LED QTY	Lens Type	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-29504	5050	24	24	30	3900	130
TL-29505	5050	30	30	40	5200	130
TL-29506	5050	36	36	50	6500	130



* 5050: LUMILEDS 5050; 3535: CREE XPG3; 3030: LUMILEDS 3030

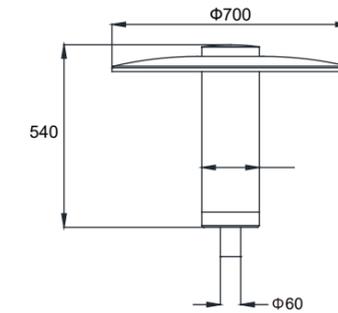
Lm: This data is tested under normal working condition, the actual data will depends on environment condition, optics/diffuser and CCT.

TL-GLP-LED95A

ø60mm



Optics available



Order code	Chip	LED QTY	Lens Type	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-29507	5050	24	24	30	3900	130
TL-29508	5050	30	30	40	5200	130
TL-29509	5050	36	36	50	6500	130

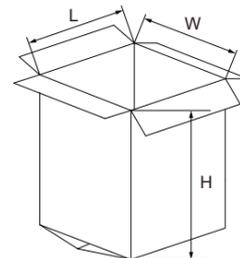
CE CB IP65 IK08

Technical information

Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70,Ta 25 C	Driver isolation	Class I or Class II
Wattags	30~50W	Control dimming	DALI / 1-10V / Timing / PWM
Light efficacy	Up to 130lm/W	Operating temperature	-35°C~50°C / 10% ~ 95% (humidity)
CRI	≥ 70 or ≥ 80	Body parts material	Die cast Aluminum
Color temperature	3000K, 4000K, Amber color	Optic	PC (standard) / PMMA (option)
Operation voltage	AC 90-305V or AC 220-240V	Screen	PC
Frequency	50 / 60Hz	Gasket	Silicone
Power factor	≥0.95 cos	Color stability	3 or 5 MacAdam steps

Packing Information

Model	Carton Size(L*W*H)	QTY/Carton	N.W.(kg)	G.W.(kg)
TL-GLP-LED95A	520*460*600mm	1	4.8	6.5



* 5050: LUMILEDS 5050; 3535: CREE XPG3; 3030: LUMILEDS 3030

Lm: This data is tested under normal working condition, the actual data will depends on environment condition, optics/diffuser and CCT.

TL-GLB-LED95D

Height: 3-5M



Technical information

Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70, Ta 25 °C	Driver isolation	Class I or Class II
Wattags	30~50W	Control dimming	DALI / 1-10V / Timing / PWM
Light efficacy	Up to 130lm/W	Operating temperature	-35°C~50°C / 10% ~ 95% (humidity)
CRI	≥ 70 or ≥ 80	Body parts material	Die cast Aluminum
Color temperature	3000K, 4000K, Amber color	Optic	PC (standard) / PMMA (option)
Operation voltage	AC 90-305V or AC 220-240V	Screen	PC
Frequency	50 / 60Hz	Gasket	Silicone
Power factor	≥0.95 cos	Color stability	3 or 5 MacAdam steps

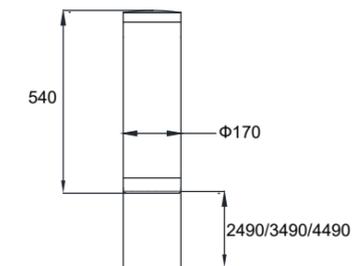
Optics available



5050
36*1

G11C36-T3

C12C36-T5



Order code	Chip	LED QTY	Lens Type	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-29510	5050	24	24	30	3900	130
TL-29511	5050	30	30	40	5200	130
TL-29512	5050	36	36	50	6500	130

Standard height: 3M / 5M / 6M

Optional Accessories

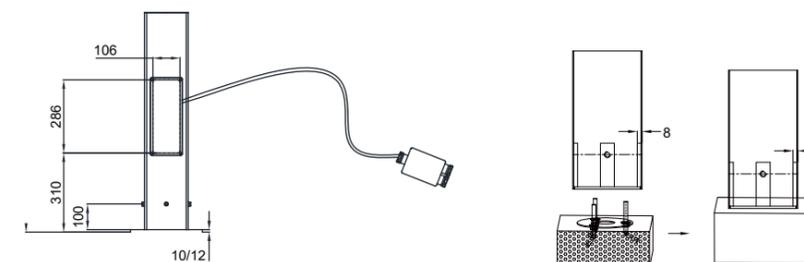
PIR for Bollard
Infrared Motion Sensor

Code.20013001



Light bar for Bollard
Color:RGBW

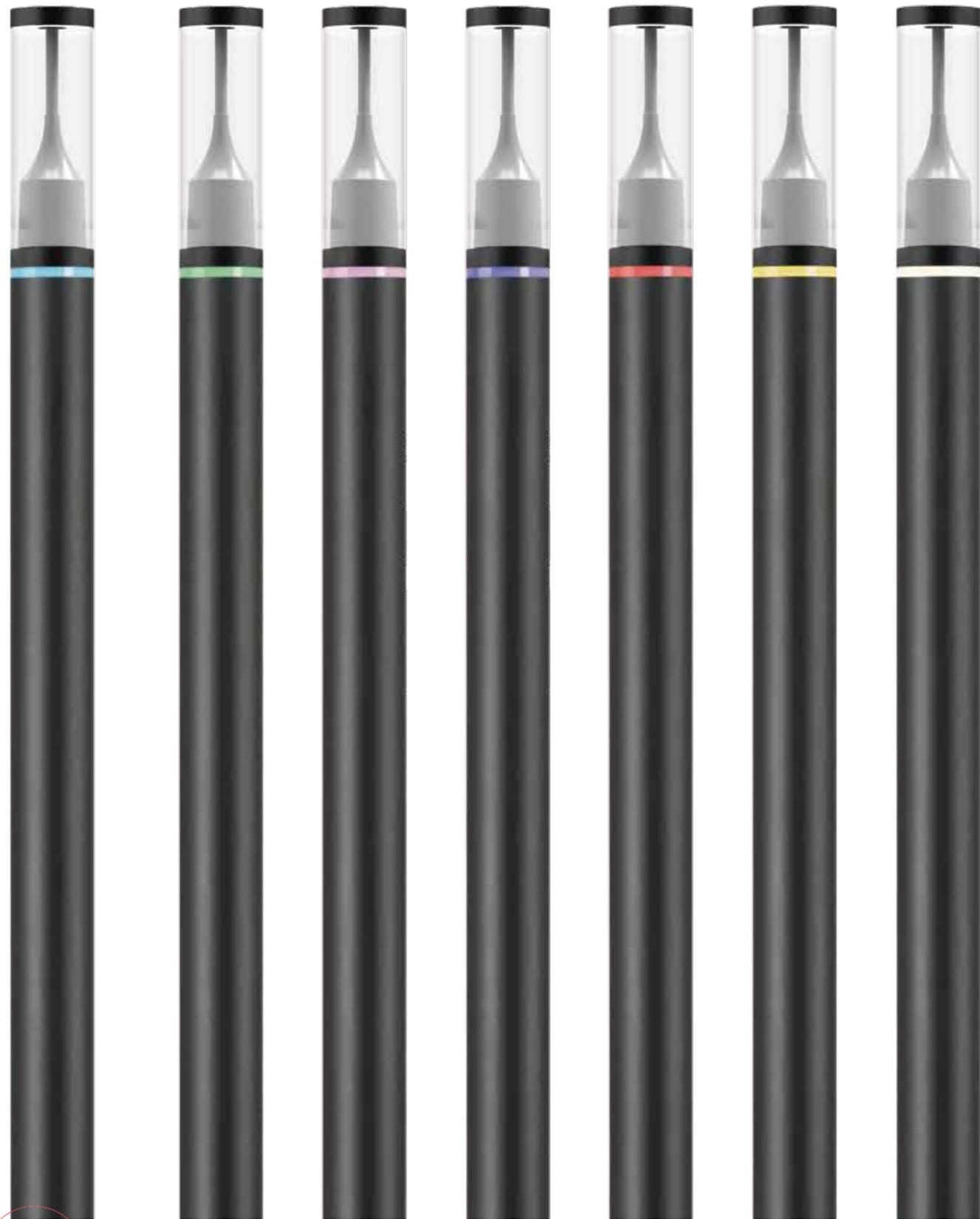
Code.20014001



* 5050: LUMILEDS 5050; 3535: CREE XPG3; 3030: LUMILEDS 3030

Lm: This data is tested under normal working condition, the actual data will depends on environment condition, optics/diffuser and CCT.

WAX



T·LUCE®

TL-GLB-LED95E

Hight:3-5M



Technical information

Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70,Ta 25 °C	Driver isolation	Class I or Class II
Wattags	30~50W	Control dimming	DALI / 1-10V / Timing / PWM
Light efficacy	Up to 130lm/W	Operating temperature	-35°C~50°C / 10% ~ 95% (humidity)
CRI	≥ 70 or ≥ 80	Body parts material	Die cast Aluminum
Color temperature	3000K, 4000K, Amber color	Optic	PC (standard) / PMMA (option)
Operation voltage	AC 90-305V or AC 220-240V	Screen	PC
Frequency	50 / 60Hz	Gasket	Silicone
Power factor	≥0.95 cos	Color stability	3 or 5 MacAdam steps

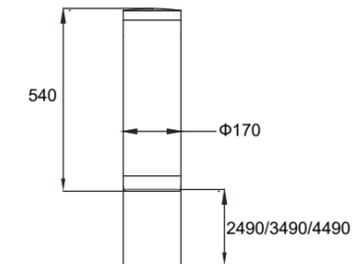
Optics available



5050
36*1

G11C36-T3

C12C36-T5



Order code	Chip	LED QTY	Lens Type	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-29513	5050	24	24	30	3900	130
TL-29514	5050	30	30	40	5200	130
TL-29515	5050	36	36	50	6500	130

Standard height: 3M / 5M / 6M

Optional Accessories

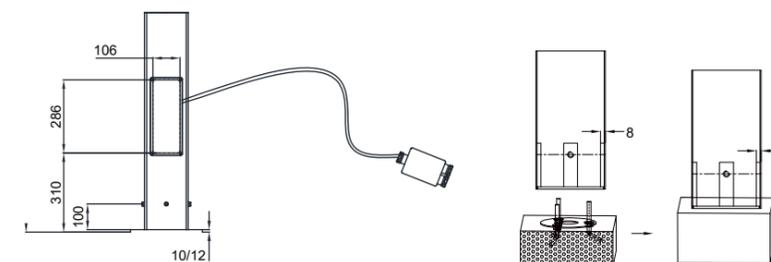
PIR for Bollard
Infrared Motion Sensor

Code.20013001



Light bar for Bollard
Color:RGBW

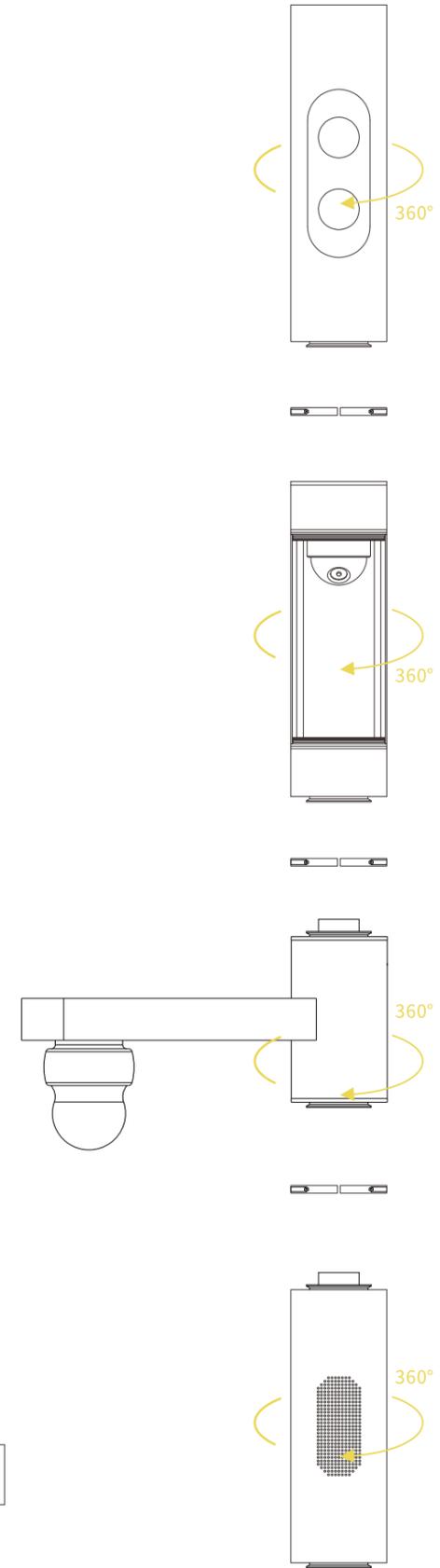
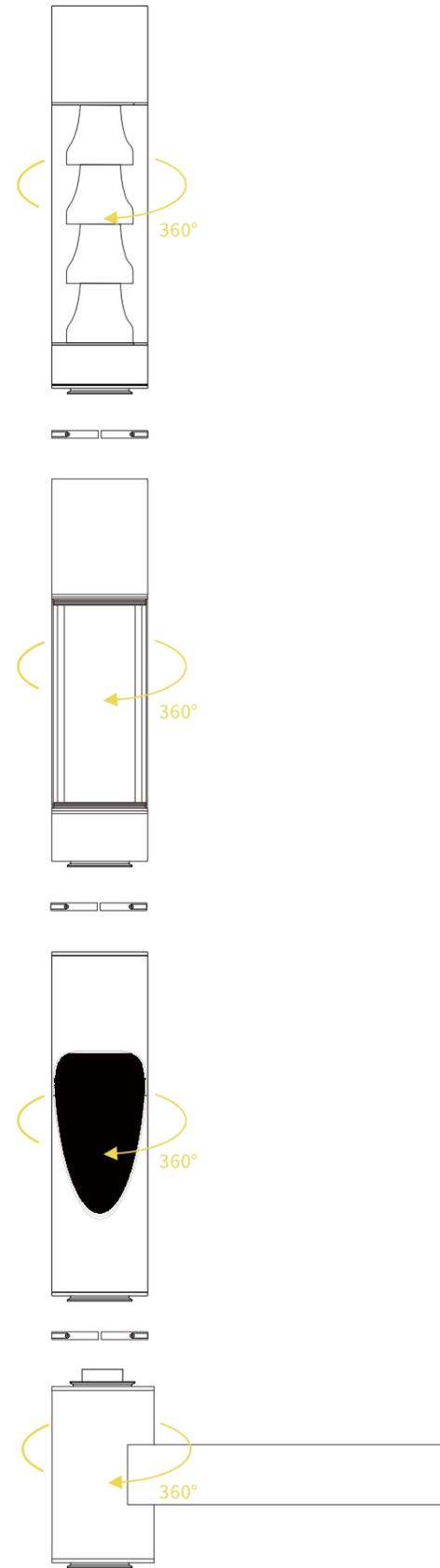
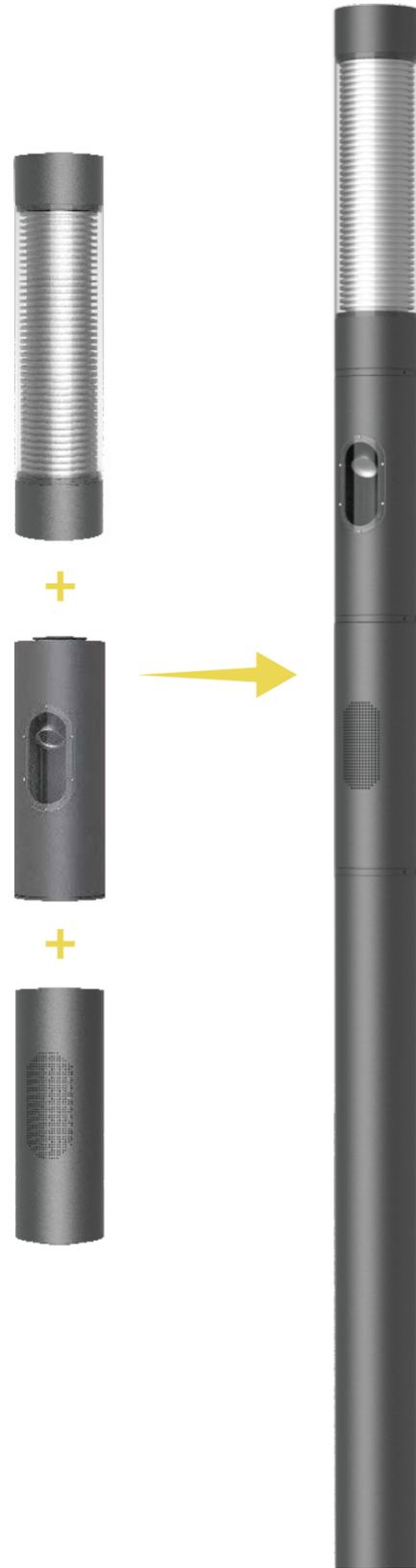
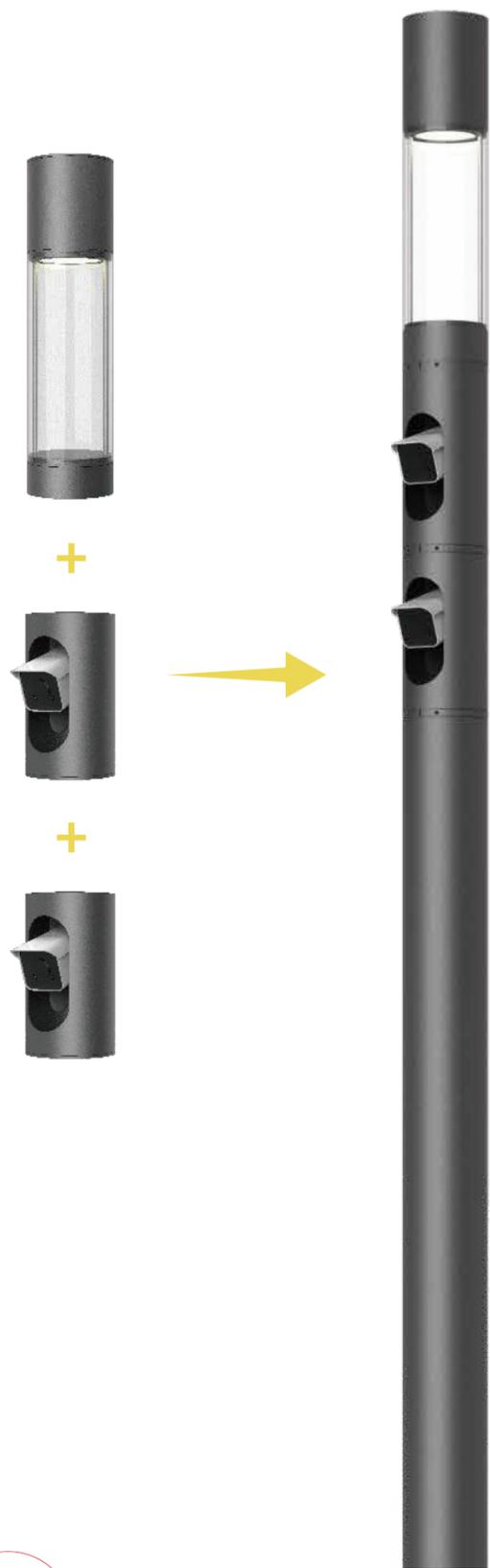
Code.20014001



* 5050: LUMILEDS 5050; 3535: CREE XPG3; 3030: LUMILEDS 3030

Lm: This data is tested under normal working condition, the actual data will depends on environment condition, optics/diffuser and CCT.

OLLIE



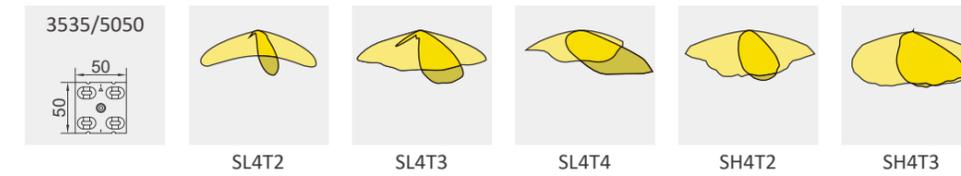
T·LUCE®



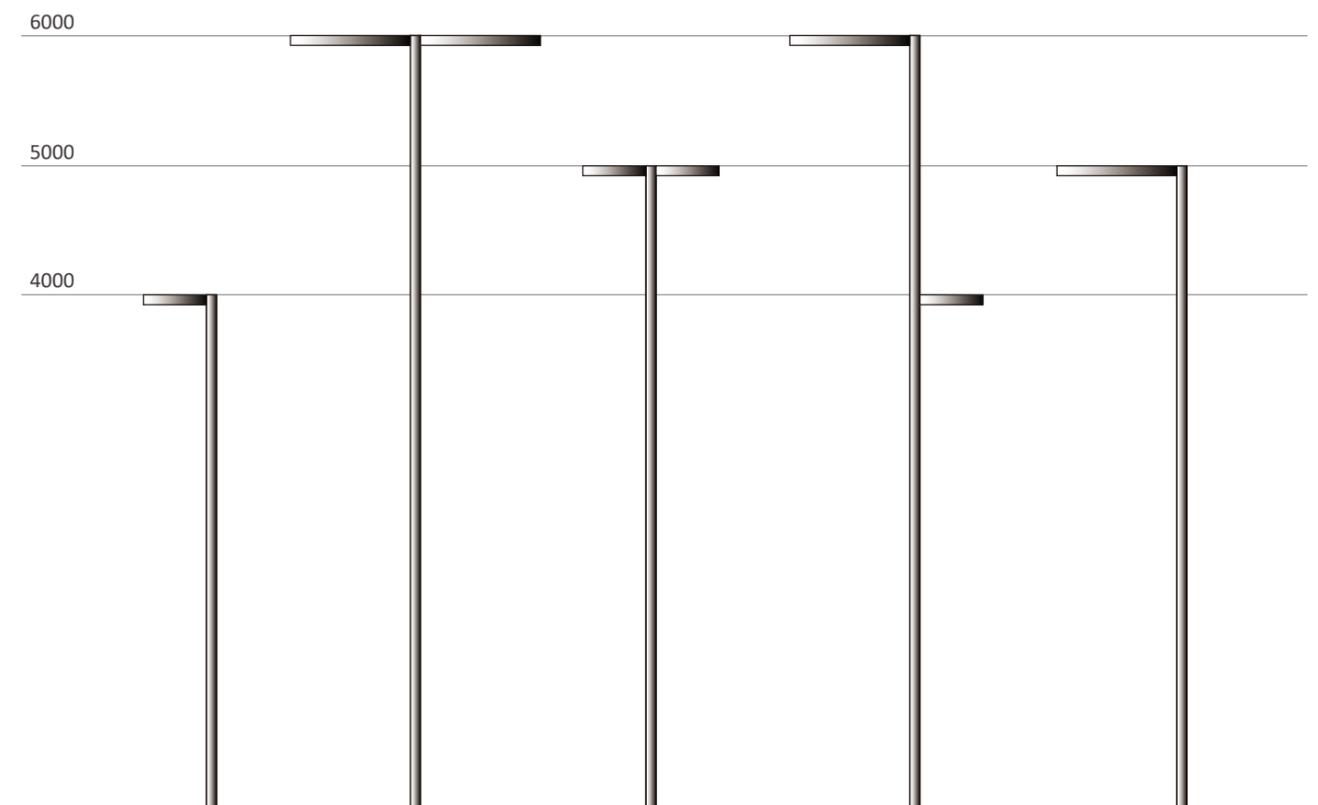
Technical information

Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70, Ta 25 °C	Driver isolation	Class I or Class II
Wattags	20~180W	Control dimming	DALI / 1-10V / Timing / PWM
Light efficacy	Up to 147lm/W	Operating temperature	-35°C~50°C / 10% ~ 95% (humidity)
CRI	≥ 70 or ≥ 80	Body parts material	Die cast Aluminum
Color temperature	3000K, 4000K, Amber color	Optic	PC (standard) / PMMA (option)
Operation voltage	AC 90-305V or AC 220-240V	Screen	PC
Frequency	50 / 60Hz	Gasket	Silicone
Power factor	≥0.95 cos	Color stability	3 or 5 MacAdam steps

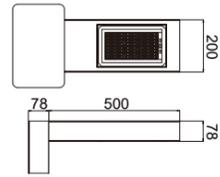
Optics available



Details

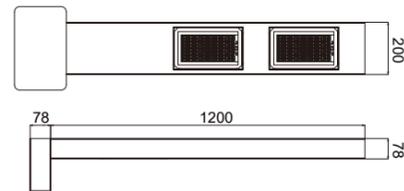


CODE



TL-GLB-LED97S

Order code	Chip	LED QTY	Lens Type	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-29701	5050	16	4	20	2940	147
TL-29702	5050	16	4	40	5640	141
TL-29703	5050	32	4	60	8460	141
TL-29704	5050	32	4	80	11200	140
TL-29705	3535	16	4	20	2940	147
TL-29706	3535	16	4	40	5640	141
TL-29707	3535	32	4	60	8460	141
TL-29708	3535	32	4	80	11200	140



TL-GLB-LED97M

Order code	Chip	LED QTY	Lens Type	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-29709	5050	32	4	40	5880	147
TL-29710	5050	32	4	80	11280	141
TL-29711	5050	64	4	120	16920	141
TL-29712	5050	64	4	160	22400	140
TL-29713	3535	32	4	40	8460	147
TL-29714	3535	32	4	80	11280	141
TL-29715	3535	64	4	120	16920	141
TL-29716	3535	64	4	160	22400	140

* 5050: LUMILEDS 5050; 3535: CREE XPG3; 3030: LUMILEDS 3030

Lm: This data is tested under normal working condition, the actual data will depends on environment condition, optics/diffuser and CCT.



GARDEN LIGHT

Patented design



Pluto
TL-GLP-LED29



Jupiter
TL-GLP-LED29A



Neptune
TL-GLP-LED29B



Pretzel
TL-GLP-LED29C

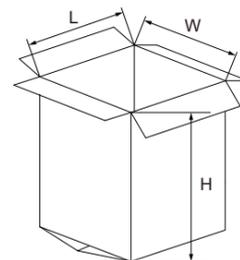


Technical information

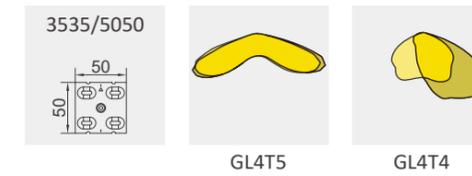
Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70, Ta 25 C	Driver isolation	Class I or Class II
Wattags	20~100W	Control dimming	DALI / 1-10V / Timing / PWM
Light efficacy	Up to 105lm/W	Operating temperature	-35°C~50°C / 10% ~ 95% (humidity)
CRI	≥ 70 or ≥ 80	Body parts material	Die cast Aluminum
Color temperature	3000K, 4000K, Amber color	Optic	PC (standard) / PMMA (option)
Operation voltage	AC 90-305V or AC 220-240V	Screen	Flat tempered glass 5mm thickness
Frequency	50 / 60Hz	Gasket	Silicone
Power factor	≥0.95 cos	Color stability	3 or 5 MacAdam steps

Packing Information

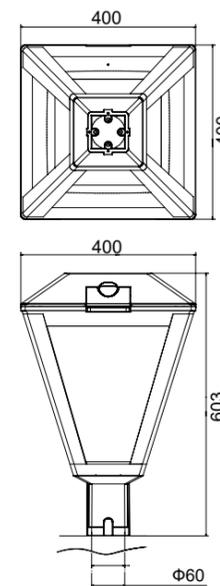
Model	Carton Size(L*W*H)	QTY/Carton	N.W.(kg)	G.W.(kg)
TL-GLP-LED29	410*410*635mm	1	10.7	11.3



Optics available



Details



Order code	Chip	LED QTY	Lens Type	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-22701	5050	16	4	20	2560	128
TL-22702	5050	16	4	30	3840	128
TL-22703	5050	24	4	40	5120	128
TL-22704	5050	24	4	50	6400	128
TL-22705	5050	32	4	60	7740	129
TL-22706	5050	32	4	70	8050	115
TL-22707	5050	48	4	80	9200	115
TL-22708	5050	48	4	90	10350	115
TL-22709	5050	48	4	100	11500	115

* 5050: LUMILEDS 5050; 3535: CREE XPG3; 3030: LUMILEDS 3030

Lm: This data is tested under normal working condition, the actual data will depends on environment condition, optics/diffuser and CCT.

TL-GLP-LED29A

ø60mm / ø76mm

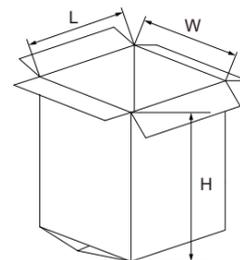


Technical information

Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70, Ta 25 C	Driver isolation	Class I or Class II
Wattags	20~100W	Control dimming	DALI / 1-10V / Timing / PWM
Light efficacy	Up to 121lm/W	Operating temperature	-35°C~50°C / 10% ~ 95% (humidity)
CRI	≥ 70 or ≥ 80	Body parts material	Die cast Aluminum
Color temperature	3000K, 4000K, Amber color	Optic	PC (standard) / PMMA (option)
Operation voltage	AC 90-305V or AC 220-240V	Screen	Flat tempered glass 5mm thickness
Frequency	50 / 60Hz	Gasket	Silicone
Power factor	≥0.95 cos	Color stability	3 or 5 MacAdam steps

Packing Information

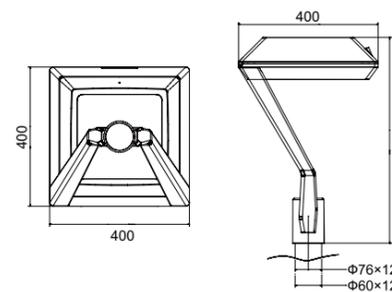
Model	Carton Size(L*W*H)	QTY/Carton	N.W.(kg)	G.W.(kg)
TL-GLP-LED29A	410*410*610mm	1	12.2	12.6



Optics available



Details



Order code	Chip	LED QTY	Lens Type	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-22910	5050	16	4	20	2560	128
TL-22911	5050	16	4	30	3840	128
TL-22912	5050	24	4	40	5120	128
TL-22913	5050	24	4	50	6400	128
TL-22914	5050	32	4	60	7740	129
TL-22915	5050	32	4	70	8050	115
TL-22916	5050	48	4	80	9200	115
TL-22917	5050	48	4	90	10350	115
TL-22918	5050	48	4	100	11500	115

* 5050: LUMILEDS 5050; 3535: CREE XPG3; 3030: LUMILEDS 3030

Lm: This data is tested under normal working condition, the actual data will depends on environment condition, optics/diffuser and CCT.

TL-GLP-LED29B

ø60mm / ø76mm

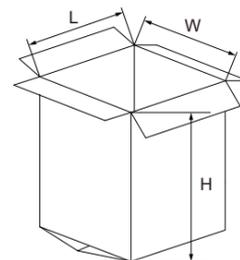


Technical information

Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70, Ta 25 C	Driver isolation	Class I or Class II
Wattags	20~100W	Control dimming	DALI / 1-10V / Timing / PWM
Light efficacy	Up to 140lm/W	Operating temperature	-35°C~50°C / 10% ~ 95% (humidity)
CRI	≥ 70 or ≥ 80	Body parts material	Die cast Aluminum
Color temperature	3000K, 4000K, Amber color	Optic	PC (standard) / PMMA (option)
Operation voltage	AC 90-305V or AC 220-240V	Screen	Flat tempered glass 5mm thickness
Frequency	50 / 60Hz	Gasket	Silicone
Power factor	≥0.95 cos	Color stability	3 or 5 MacAdam steps

Packing Information

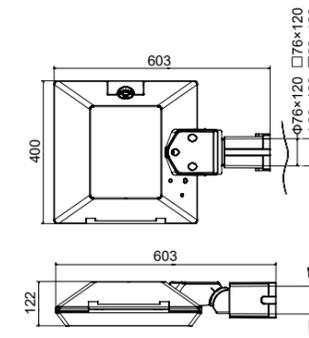
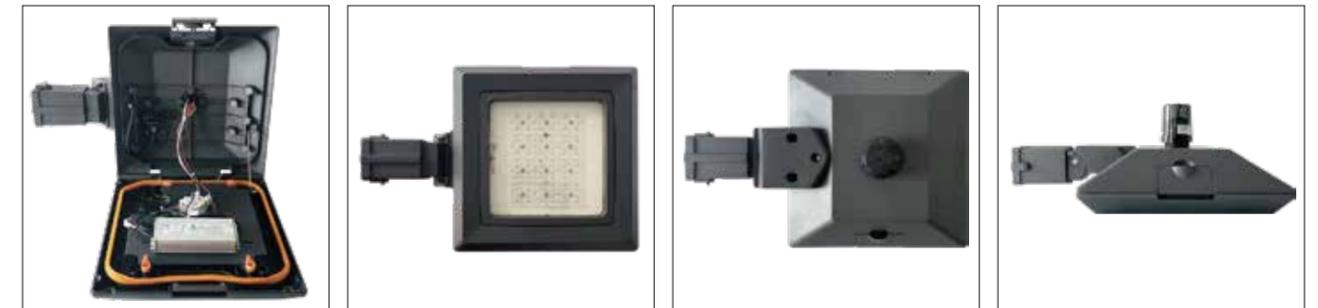
Model	Carton Size(L*W*H)	QTY/Carton	N.W.(kg)	G.W.(kg)
TL-GLP-LED29B	610*410*155mm	1	10.5	11.3



Optics available



Details



Order code	Chip	LED QTY	Lens Type	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-22919	5050	16	4	20	2560	128
TL-22920	5050	16	4	30	3840	128
TL-22921	5050	24	4	40	5120	128
TL-22922	5050	24	4	50	6400	128
TL-22923	5050	32	4	60	7740	129
TL-22924	5050	32	4	70	8050	115
TL-22925	5050	48	4	80	9200	115
TL-22926	5050	48	4	90	10350	115
TL-22927	5050	48	4	100	11500	115

* 5050: LUMILEDS 5050; 3535: CREE XPG3; 3030: LUMILEDS 3030

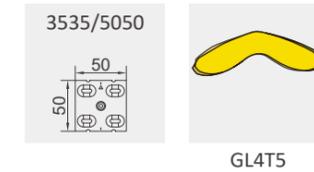
Lm: This data is tested under normal working condition, the actual data will depends on environment condition, optics/diffuser and CCT.



TL-GLP-LED29C

ø60mm / ø76mm

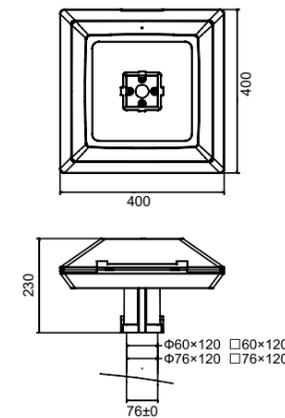
Optics available



Technical information

Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70, Ta 25 C	Driver isolation	Class I or Class II
Wattags	20~100W	Control dimming	DALI / 1-10V / Timing / PWM
Light efficacy	Up to 140lm/W	Operating temperature	-35°C~50°C / 10% ~ 95% (humidity)
CRI	≥ 70 or ≥ 80	Body parts material	Die cast Aluminum
Color temperature	3000K, 4000K, Amber color	Optic	PC (standard) / PMMA (option)
Operation voltage	AC 90-305V or AC 220-240V	Screen	Flat tempered glass 5mm thickness
Frequency	50 / 60Hz	Gasket	Silicone
Power factor	≥0.95 cos	Color stability	3 or 5 MacAdam steps

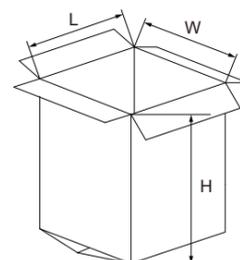
Details



Order code	Chip	LED QTY	Lens Type	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-22928	5050	16	4	20	2560	128
TL-22929	5050	16	4	30	3840	128
TL-22930	5050	24	4	40	5120	128
TL-22931	5050	24	4	50	6400	128
TL-22932	5050	32	4	60	7740	129
TL-22933	5050	32	4	70	8050	115
TL-22934	5050	48	4	80	9200	115
TL-22935	5050	48	4	90	10350	115
TL-22936	5050	48	4	100	11500	115

Packing Information

Model	Carton Size(L*W*H)	QTY/Carton	N.W.(kg)	G.W.(kg)
TL-GLP-LED29C	415*415*265mm	1	9.0	11.3

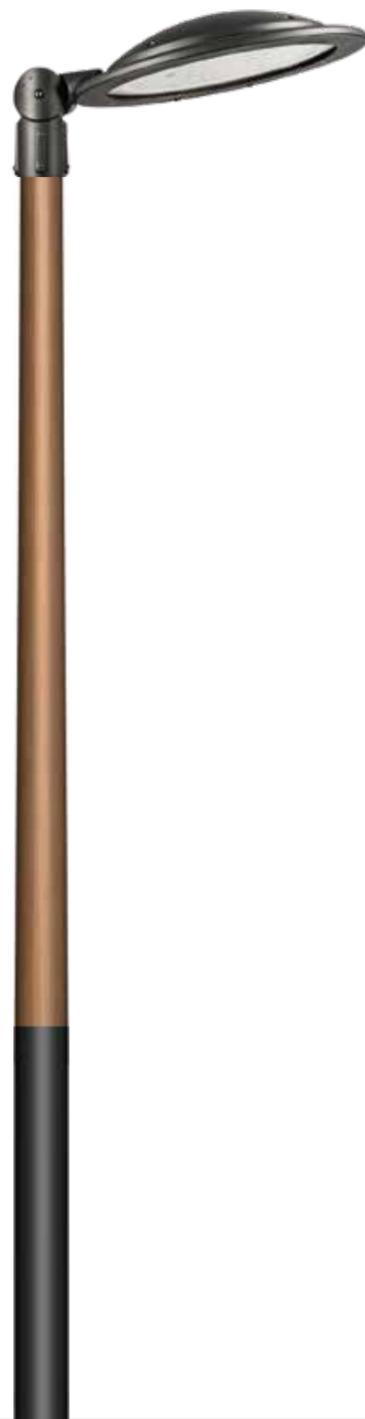


* 5050: LUMILEDS 5050; 3535: CREE XPG3; 3030: LUMILEDS 3030

Lm: This data is tested under normal working condition, the actual data will depends on environment condition, optics/diffuser and CCT.

GARDEN LIGHT

Patented design



Lada
TL-GLP-LED25

Polo
TL-GLP-LED25N

Atom
TL-GLP-LED25B

Bursa
TL-GLP-LED25A

Rhea
TL-GLP-LED25J

Hagen
TL-GLP-LED25H

TL-GLP-LED25

∅60mm

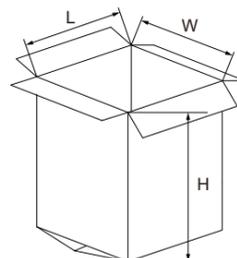


Technical information

Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70, Ta 25 C	Driver isolation	Class I or Class II
Wattags	40~100W	Control dimming	DALI / 1-10V / Timing / PWM
Light efficacy	Up to 116lm/W	Operating temperature	-35°C~50°C / 10% ~ 95% (humidity)
CRI	≥ 70 or ≥ 80	Body parts material	Die cast Aluminum
Color temperature	3000K, 4000K, Amber color	Optic	PC (standard) / PMMA (option)
Operation voltage	AC 90-305V or AC 220-240V	Screen	Flat tempered glass 5mm thickness
Frequency	50 / 60Hz	Gasket	Silicone
Power factor	≥0.95 cos	Color stability	3 or 5 MacAdam steps

Packing Information

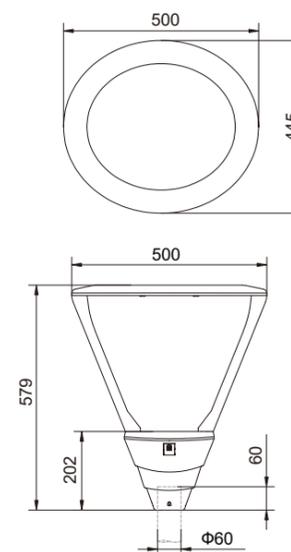
Model	Carton Size(L*W*H)	QTY/Carton	N.W.(kg)	G.W.(kg)
TL-GLP-LED25	520*460*600mm	1	9.2	10.6



Optics available



Details



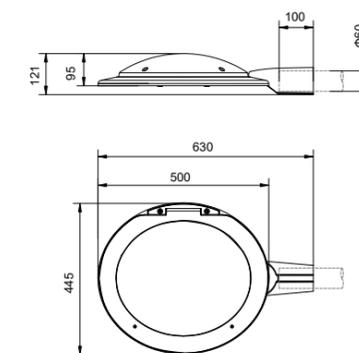
Order code	Chip	LED QTY	Lens Type	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-22510	3030	56	14	20	2320	116
TL-22511	3030	56	14	30	3390	113
TL-22512	3030	56	14	40	4480	112
TL-22513	3030	56	14	50	5450	109
TL-22514	3030	84	14	60	6960	116
TL-22515	3030	84	14	70	7910	113
TL-22516	3030	84	14	80	8960	112
TL-22517	3030	126	14	90	10350	115
TL-22518	3030	126	14	100	10900	109

* 5050: LUMILEDS 5050; 3535: CREE XPG3; 3030: LUMILEDS 3030

Lm: This data is tested under normal working condition, the actual data will depends on environment condition, optics/diffuser and CCT.



Optics available



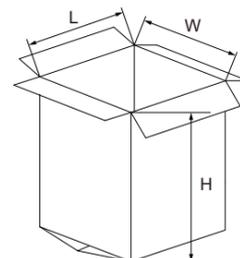
Order code	Chip	LED QTY	Lens Type	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-22546	3030	56	14	20	2320	116
TL-22547	3030	56	14	30	3390	113
TL-22548	3030	56	14	40	4480	112
TL-22549	3030	56	14	50	5450	109
TL-22550	3030	84	14	60	6960	116
TL-22551	3030	84	14	70	7910	113
TL-22552	3030	84	14	80	8960	112
TL-22553	3030	126	14	90	10350	115
TL-22554	3030	126	14	100	10900	109

Technical information

Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70, Ta 25 C	Driver isolation	Class I or Class II
Wattags	40~100W	Control dimming	DALI / 1-10V / Timing / PWM
Light efficacy	Up to 140lm/W	Operating temperature	-35°C~50°C / 10% ~ 95% (humidity)
CRI	≥ 70 or ≥ 80	Body parts material	Die cast Aluminum
Color temperature	3000K, 4000K, Amber color	Optic	PC (standard) / PMMA (option)
Operation voltage	AC 90-305V or AC 220-240V	Screen	Flat tempered glass 5mm thickness
Frequency	50 / 60Hz	Gasket	Silicone
Power factor	≥0.95 cos	Color stability	3 or 5 MacAdam steps

Packing Information

Model	Carton Size(L*W*H)	QTY/Carton	N.W.(kg)	G.W.(kg)
TL-GLP-LED25B	645*460*150mm	1	8.4	9.3



* 5050: LUMILEDS 5050; 3535: CREE XPG3; 3030: LUMILEDS 3030

Lm: This data is tested under normal working condition, the actual data will depends on environment condition, optics/diffuser and CCT.



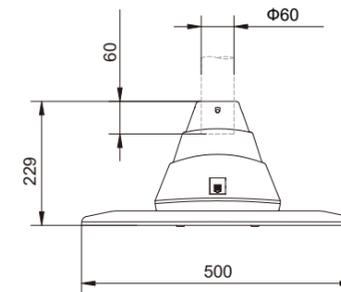
Optics available



Technical information

Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70, Ta 25 C	Driver isolation	Class I or Class II
Wattags	40~100W	Control dimming	DALI / 1-10V / Timing / PWM
Light efficacy	Up to 152lm/W	Operating temperature	-35°C~50°C / 10% ~ 95% (humidity)
CRI	≥ 70 or ≥ 80	Body parts material	Die cast Aluminum
Color temperature	3000K, 4000K, Amber color	Optic	PC (standard) / PMMA (option)
Operation voltage	AC 90-305V or AC 220-240V	Screen	Flat tempered glass 5mm thickness
Frequency	50 / 60Hz	Gasket	Silicone
Power factor	≥0.95 cos	Color stability	3 or 5 MacAdam steps

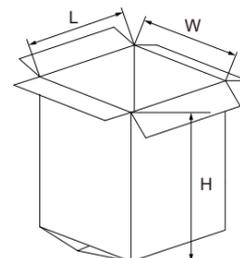
Details



Order code	Chip	LED QTY	Lens Type	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-22564	3030	56	14	20	2320	116
TL-22565	3030	56	14	30	3390	113
TL-22566	3030	56	14	40	4480	112
TL-22567	3030	56	14	50	5450	109
TL-22568	3030	84	14	60	6960	116
TL-22569	3030	84	14	70	7910	113
TL-22570	3030	84	14	80	8960	112
TL-22571	3030	126	14	90	10350	115
TL-22572	3030	126	14	100	10900	109

Packing Information

Model	Carton Size(L*W*H)	QTY/Carton	N.W.(kg)	G.W.(kg)
TL-GLP-LED25A	515*460*270mm	1	7.5	8.6



* 5050: LUMILEDS 5050; 3535: CREE XPG3; 3030: LUMILEDS 3030

Lm: This data is tested under normal working condition, the actual data will depends on environment condition, optics/diffuser and CCT.

TL-GLP-LED25H

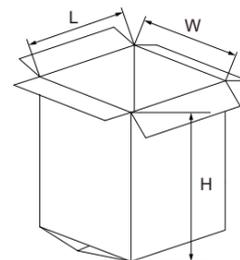


Technical information

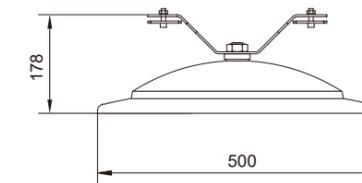
Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70, Ta 25 C	Driver isolation	Class I or Class II
Wattags	40~100W	Control dimming	DALI / 1-10V / Timing / PWM
Light efficacy	Up to 152lm/W	Operating temperature	-35°C~50°C / 10% ~ 95% (humidity)
CRI	≥ 70 or ≥ 80	Body parts material	Die cast Aluminum
Color temperature	3000K, 4000K, Amber color	Optic	PC (standard) / PMMA (option)
Operation voltage	AC 90-305V or AC 220-240V	Screen	Flat tempered glass 5mm thickness
Frequency	50 / 60Hz	Gasket	Silicone
Power factor	≥0.95 cos	Color stability	3 or 5 MacAdam steps

Packing Information

Model	Carton Size(L*W*H)	QTY/Carton	N.W.(kg)	G.W.(kg)
TL-GLP-LED25H	515*460*220mm	1	8.6	9.8



Optics available



Order code	Chip	LED QTY	Lens Type	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-22582	3030	56	14	20	2320	116
TL-22583	3030	56	14	30	3390	113
TL-22584	3030	56	14	40	4480	112
TL-22585	3030	56	14	50	5450	109
TL-22586	3030	84	14	60	6960	116
TL-22587	3030	84	14	70	7910	113
TL-22588	3030	84	14	80	8960	112
TL-22589	3030	126	14	90	10350	115
TL-22590	3030	126	14	100	10900	109

* 5050: LUMILEDS 5050; 3535: CREE XPG3; 3030: LUMILEDS 3030

Lm: This data is tested under normal working condition, the actual data will depends on environment condition, optics/diffuser and CCT.

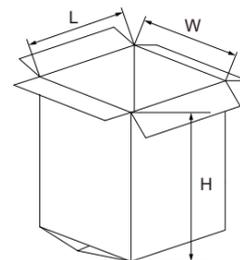


Technical information

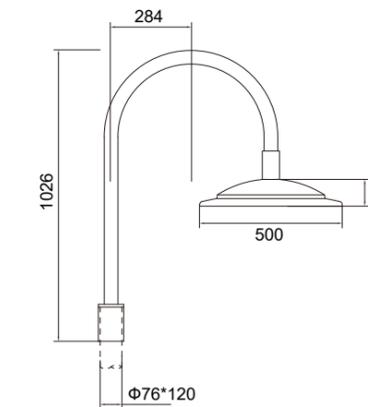
Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70, Ta 25 C	Driver isolation	Class I or Class II
Wattags	40~100W	Control dimming	DALI / 1-10V / Timing / PWM
Light efficacy	Up to 152lm/W	Operating temperature	-35°C~50°C / 10% ~ 95% (humidity)
CRI	≥ 70 or ≥ 80	Body parts material	Die cast Aluminum
Color temperature	3000K, 4000K, Amber color	Optic	PC (standard) / PMMA (option)
Operation voltage	AC 90-305V or AC 220-240V	Screen	Flat tempered glass 5mm thickness
Frequency	50 / 60Hz	Gasket	Silicone
Power factor	≥0.95 cos	Color stability	3 or 5 MacAdam steps

Packing Information

Model	Carton Size(L*W*H)	QTY/Carton	N.W.(kg)	G.W.(kg)
TL-GLP-LED25J	515*460*220mm	1	9.2	11.1



Optics available



Order code	Chip	LED QTY	Lens Type	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-225100	3030	56	14	20	2320	116
TL-225101	3030	56	14	30	3390	113
TL-225102	3030	56	14	40	4480	112
TL-225103	3030	56	14	50	5450	109
TL-225104	3030	84	14	60	6960	116
TL-225105	3030	84	14	70	7910	113
TL-225106	3030	84	14	80	8960	112
TL-225107	3030	126	14	90	10350	115
TL-225108	3030	126	14	100	10900	109

* 5050: LUMILEDS 5050; 3535: CREE XPG3; 3030: LUMILEDS 3030

Lm: This data is tested under normal working condition, the actual data will depends on environment condition, optics/diffuser and CCT.

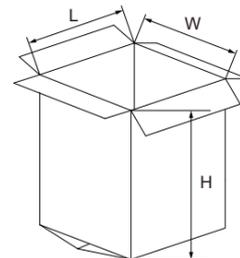


Technical information

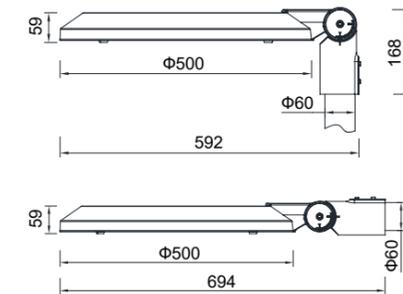
Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70,Ta 25 C	Driver isolation	Class I or Class II
Wattags	40~100W	Control dimming	DALI / 1-10V / Timing / PWM
Light efficacy	Up to 143lm/W	Operating temperature	-40°C~50°C / 10% ~ 90% (humidity)
CRI	≥ 70 or ≥ 80	Body parts material	Die cast Aluminum
Color temperature	2700 ~ 6500K	Optic	PC (standard) / PMMA (option)
Operation voltage	AC 100-240V	Screen	Flat tempered glass 5mm thickness
Frequency	50 / 60Hz	Gasket	Silicone
Power factor	≥0.9 cos	Color stability	5 MacAdam steps

Packing Information

Model	Carton Size(L*W*H)	QTY/Carton	N.W.(kg)	G.W.(kg)
TL-GLP-E08S	590*500*150mm	1	5.5	6.0



Optics available



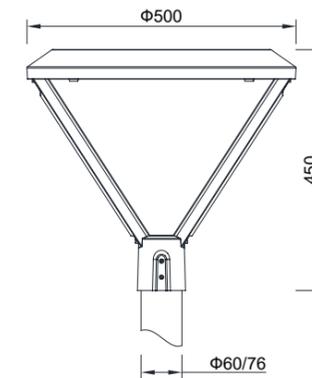
Order code	Chip	LED QTY	Lens Type	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-E20801	3030	56	14	40	5200	130
TL-E20802	3030	84	14	60	7800	130
TL-E20803	3030	126	14	80	10400	130
TL-E20804	3030	126	14	90	11700	130

* 3030: Philips 3030

Lm: This data is tested under normal working condition, the actual data will depends on environment condition, optics/diffuser and CCT.



Optics available



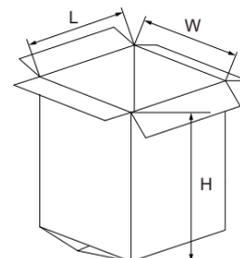
Order code	Chip	LED QTY	Lens Type	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-E20811	3030	56	14	40	5200	130
TL-E20812	3030	84	14	60	7800	130
TL-E20813	3030	126	14	80	10400	130
TL-E20814	3030	126	14	90	11700	130

Technical information

Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70, Ta 25 C	Driver isolation	Class I or Class II
Wattags	40~100W	Control dimming	DALI / 1-10V / Timing / PWM
Light efficacy	Up to 143lm/W	Operating temperature	-40°C~50°C / 10% ~ 90% (humidity)
CRI	≥ 70 or ≥ 80	Body parts material	Die cast Aluminum
Color temperature	2700 ~ 6500K	Optic	PC (standard) / PMMA (option)
Operation voltage	AC 100-240V	Screen	Flat tempered glass 5mm thickness
Frequency	50 / 60Hz	Gasket	Silicone
Power factor	≥0.9 cos	Color stability	5 MacAdam steps

Packing Information

Model	Carton Size(L*W*H)	QTY/Carton	N.W.(kg)	G.W.(kg)
TL-GLP-E08D	590*500*150mm	1	5.5	6.0

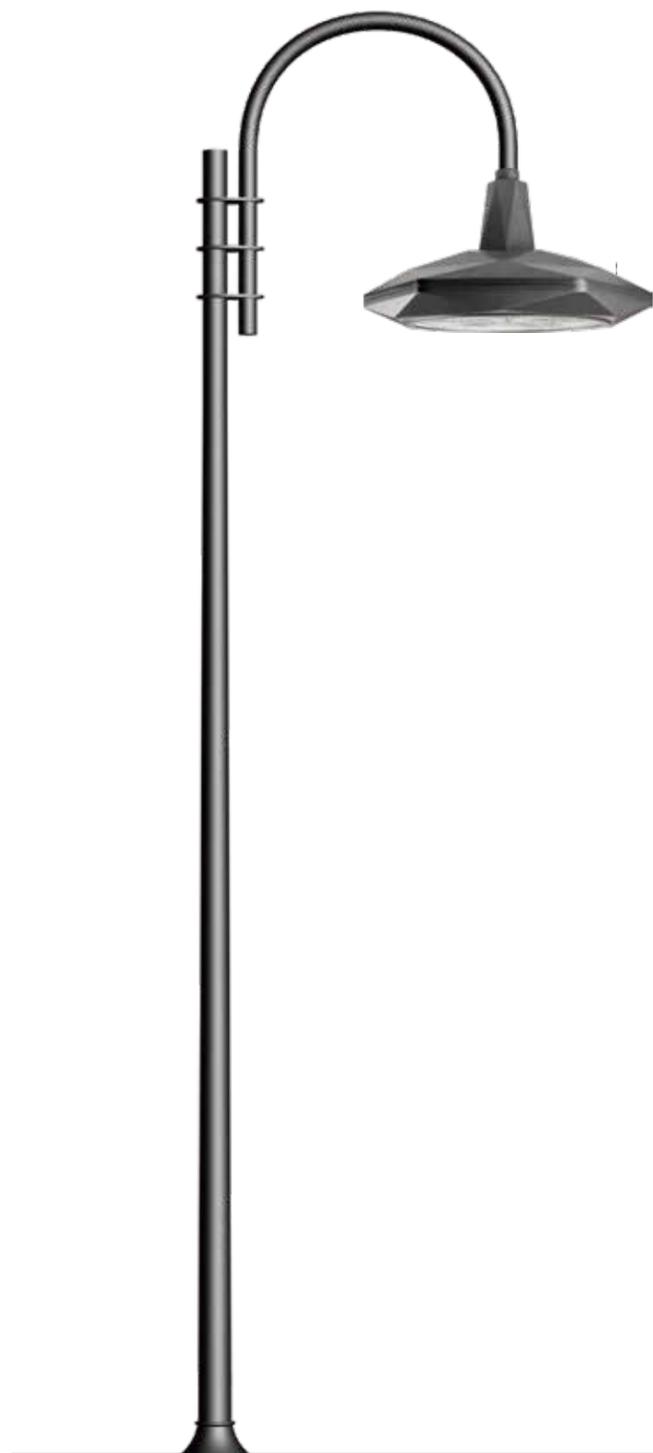


* 3030: Philips 3030

Lm: This data is tested under normal working condition, the actual data will depends on environment condition, optics/diffuser and CCT.

GARDEN LIGHT

Patented design



Jade
TL-GLP-LED22



Ruby
TL-GLP-LED23A



Conico
TL-GLP-LED02



Regina
TL-GLP-LED98

TL-GLP-LED22

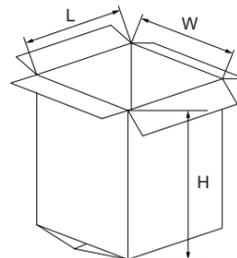


Technical information

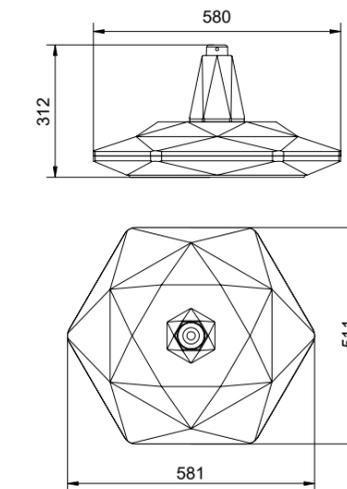
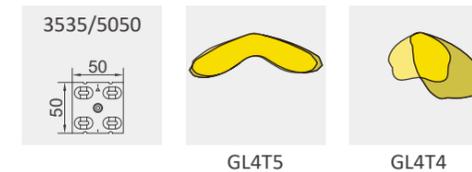
Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70,Ta 25 C	Driver isolation	Class I or Class II
Wattags	40~100W	Control dimming	DALI / 1-10V / Timing / PWM
Light efficacy	Up to 140lm/W	Operating temperature	-35°C~50°C / 10% ~ 95% (humidity)
CRI	≥ 70 or ≥ 80	Body parts material	Die cast Aluminum
Color temperature	3000K, 4000K, Amber color	Optic	PC (standard) / PMMA (option)
Operation voltage	AC 90-305V or AC 220-240V	Screen	Flat tempered glass 5mm thickness
Frequency	50 / 60Hz	Gasket	Silicone
Power factor	≥0.95 cos	Color stability	3 or 5 MacAdam steps

Packing Information

Model	Carton Size(L*W*H)	QTY/Carton	N.W.(kg)	G.W.(kg)
TL-GLP-LED22	600*530*340mm	1	10.0	11.3



Optics available



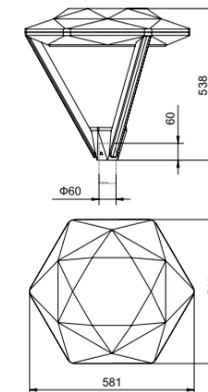
Order code	Chip	LED QTY	Lens Type	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-22201	5050	16	4	30	4110	137
TL-22202	5050	24	4	40	5360	134
TL-22203	5050	24	4	60	7620	127
TL-22204	5050	36	4	80	10080	126
TL-22205	5050	36	4	100	12400	124

* 5050: LUMILEDS 5050; 3535: CREE XPG3; 3030: LUMILEDS 3030

Lm: This data is tested under normal working condition, the actual data will depends on environment condition, optics/diffuser and CCT.



Optics available



Order code	Chip	LED QTY	Lens Type	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-22301	5050	16	4	30	4110	137
TL-22302	5050	24	4	40	5360	134
TL-22303	5050	24	4	60	7620	127
TL-22304	5050	36	4	80	10080	126
TL-22305	5050	36	4	100	12400	124

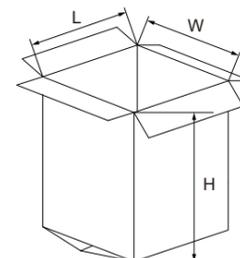


Technical information

Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70,Ta 25 C	Driver isolation	Class I or Class II
Wattags	40~100W	Control dimming	DALI / 1-10V / Timing / PWM
Light efficacy	Up to 126lm/W	Operating temperature	-35°C~50°C / 10% ~ 95% (humidity)
CRI	≥ 70 or ≥ 80	Body parts material	Die cast Aluminum
Color temperature	3000K, 4000K, Amber color	Optic	PC (standard) / PMMA (option)
Operation voltage	AC 90-305V or AC 220-240V	Screen	Flat tempered glass 5mm thickness
Frequency	50 / 60Hz	Gasket	Silicone
Power factor	≥0.95 cos	Color stability	3 or 5 MacAdam steps

Packing Information

Model	Carton Size(L*W*H)	QTY/Carton	N.W.(kg)	G.W.(kg)
TL-GLP-LED23A	600*530*570mm	1	9.9	10.5

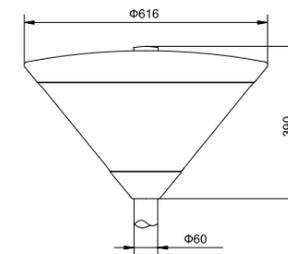


* 5050: LUMILEDS 5050; 3535: CREE XPG3; 3030: LUMILEDS 3030

Lm: This data is tested under normal working condition, the actual data will depends on environment condition, optics/diffuser and CCT.



Optics available



Order code	Chip	LED QTY	Lens Type	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-20201	5050	16	4	30	4110	137
TL-20202	5050	24	4	40	5360	134
TL-20203	5050	24	4	60	7620	127
TL-20204	5050	36	4	80	10080	126
TL-20205	5050	36	4	100	12400	124

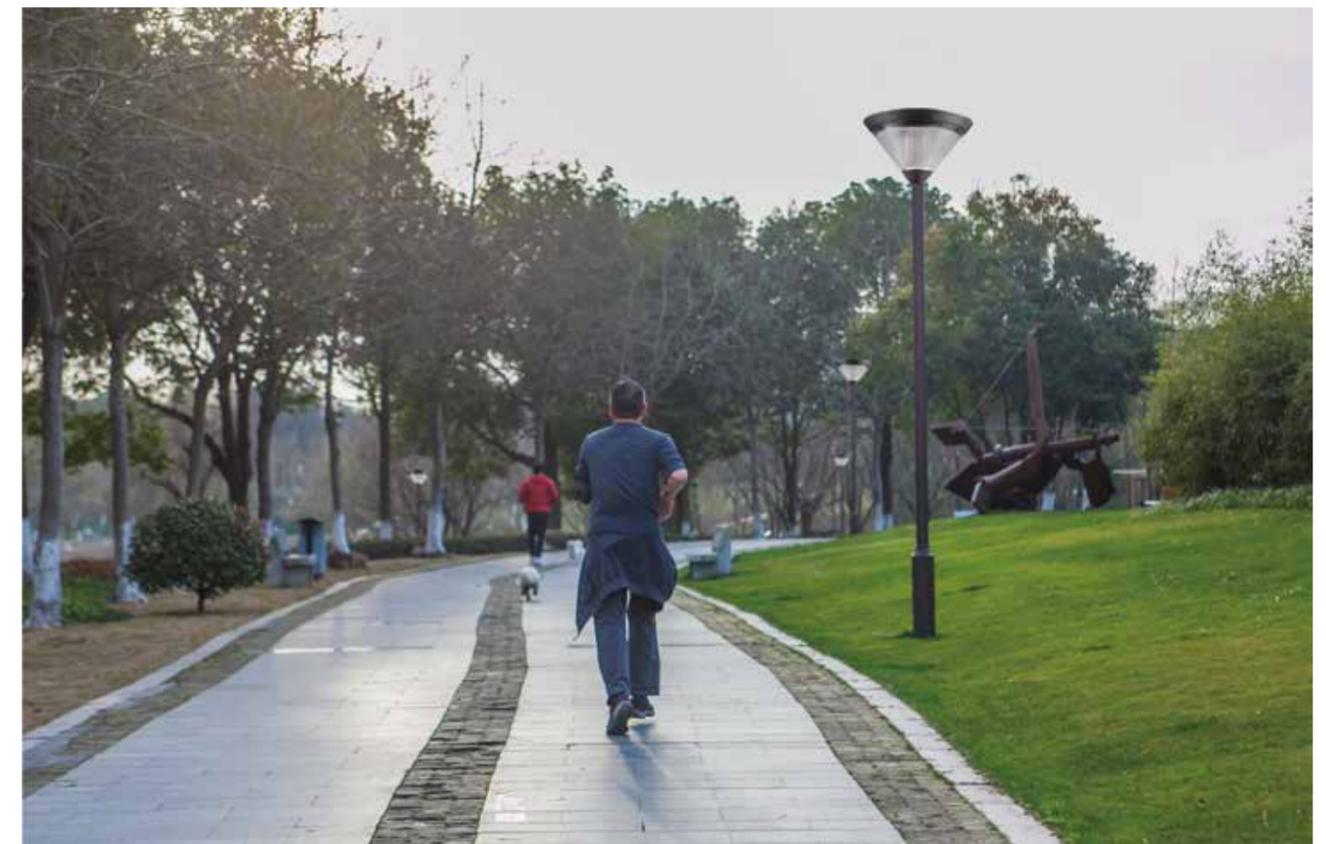
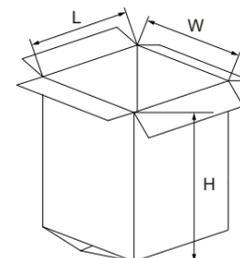


Technical information

Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70, Ta 25 C	Driver isolation	Class I or Class II
Wattags	40~80W	Control dimming	DALI / 1-10V / Timing / PWM
Light efficacy	Up to 104lm/W	Operating temperature	-35°C~50°C / 10% ~ 95% (humidity)
CRI	≥ 70 or ≥ 80	Body parts material	Die cast Aluminum
Color temperature	3000K, 4000K, Amber color	Optic	PC (standard) / PMMA (option)
Operation voltage	AC 90-305V or AC 220-240V	Cover	PC
Frequency	50 / 60Hz	Gasket	Silicone
Power factor	≥0.95 cos	Color stability	3 or 5 MacAdam steps

Packing Information

Model	Carton Size(L*W*H)	QTY/Carton	N.W.(kg)	G.W.(kg)
TL-GLP-LED02	625*625*400mm	1	8.0	9.6



* 5050: LUMILEDS 5050; 3535: CREE XPG3; 3030: LUMILEDS 3030

Lm: This data is tested under normal working condition, the actual data will depends on environment condition, optics/diffuser and CCT.



Optics available

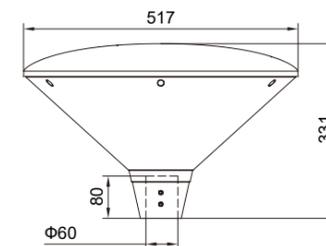


Details



Technical information

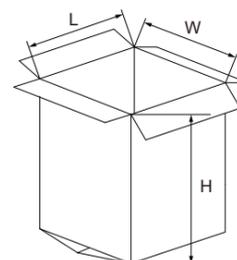
Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70, Ta 25 C	Driver isolation	Class I or Class II
Wattags	30~60W	Control dimming	DALI / 1-10V / Timing / PWM
Light efficacy	Up to 120lm/W	Operating temperature	-35°C~50°C / 10% ~ 95% (humidity)
CRI	≥ 70 or ≥ 80	Body parts material	Die cast Aluminum
Color temperature	3000K, 4000K, Amber color	Optic	PC (standard) / PMMA (option)
Operation voltage	AC 90-305V or AC 220-240V	Cover	PC
Frequency	50 / 60Hz	Gasket	Silicone
Power factor	≥0.95 cos	Color stability	3 or 5 MacAdam steps



Order code	Chip	LED QTY	Lens Type	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-20301	3030	48	14	30	3600	120
TL-20302	3030	48	14	40	4800	120
TL-20303	3030	84	14	50	6000	120
TL-20304	3030	84	14	60	7200	120

Packing Information

Model	Carton Size(L*W*H)	QTY/Carton	N.W.(kg)	G.W.(kg)
TL-GLP-LED03	625*625*400mm	1	8.0	9.6



* 5050: LUMILEDS 5050; 3535: CREE XPG3; 3030: LUMILEDS 3030

Lm: This data is tested under normal working condition, the actual data will depends on environment condition, optics/diffuser and CCT.

TWO SIZE

TL-GLP-LED98S
ø26mm

S



TL-GLP-LED98
ø60mm / ø76mm

L

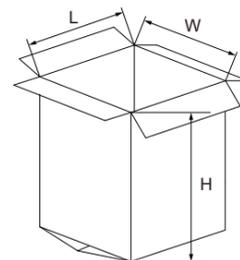


Technical information

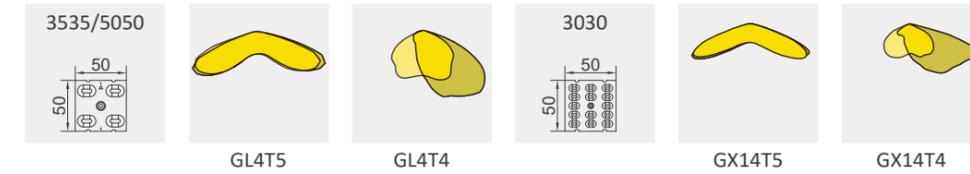
Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70, Ta 25 C	Driver isolation	Class I or Class II
Wattags	20~80W	Control dimming	DALI / 1-10V / Timing / PWM
Light efficacy	Up to 127lm/W	Operating temperature	-35°C~50°C / 10% ~ 95% (humidity)
CRI	≥ 70 or ≥ 80	Body parts material	Die cast Aluminum
Color temperature	3000K, 4000K, Amber color	Optic	PC (standard) / PMMA (option)
Operation voltage	AC 90-305V or AC 220-240V	Screen	Flat tempered glass 5mm thickness
Frequency	50 / 60Hz	Gasket	Silicone
Power factor	≥0.95 cos	Color stability	3 or 5 MacAdam steps

Packing Information

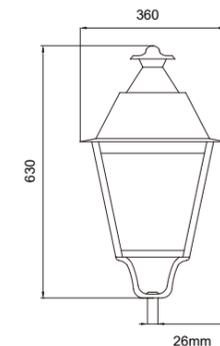
Model	Carton Size(L*W*H)	QTY/Carton	N.W.(kg)	G.W.(kg)
S TL-GLP-LED98S	400*400*660mm	1	5.2	5.9
L TL-GLP-LED98	455*455*520mm	1	6.0	6.5



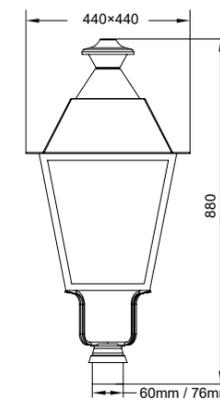
Optics available



Details



HYT-LED98S



HYT-LED98

Order code	Chip	LED QTY	Lens Type	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-90101	5050	16	4	30	4110	137

Order code	Chip	LED QTY	Lens Type	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-90104	5050	24	4	40	5360	134
TL-90105	5050	24	4	60	7620	127
TL-90106	5050	36	4	80	10080	126
TL-90107	5050	36	4	100	12400	124

* 5050: LUMILEDS 5050; 3535: CREE XPG3; 3030: LUMILEDS 3030

Lm: This data is tested under normal working condition, the actual data will depends on environment condition, optics/diffuser and CCT.

REGINA PRO

Patented design



TL-GLP-LED99

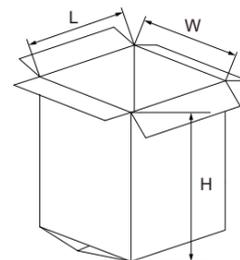


Technical information

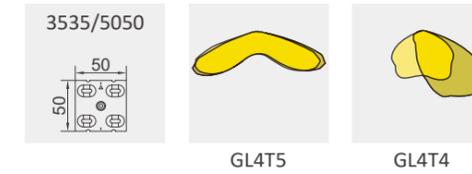
Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70, Ta 25 C	Driver isolation	Class I or Class II
Wattags	30~80W	Control dimming	DALI / 1-10V / Timing / PWM
Light efficacy	Up to 127lm/W	Operating temperature	-35°C~50°C / 10% ~ 95% (humidity)
CRI	≥ 70 or ≥ 80	Body parts material	Die cast Aluminum
Color temperature	3000K, 4000K, Amber color	Optic	PC (standard) / PMMA (option)
Operation voltage	AC 90-305V or AC 220-240V	Screen	Flat tempered glass 5mm thickness
Frequency	50 / 60Hz	Gasket	Silicone
Power factor	≥0.95 cos	Color stability	3 or 5 MacAdam steps

Packing Information

Model	Carton Size(L*W*H)	QTY/Carton	N.W.(kg)	G.W.(kg)
TL-GLP-LED99	460*460*740mm	1	9.3	11.65



Optics available



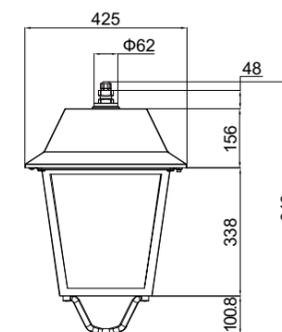
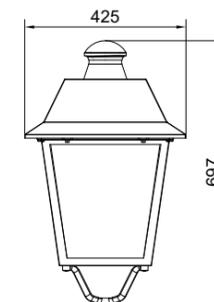
Details



Option: NEMA base

Option: Hanging installation

Option: White PC cover



Order code	Chip	LED QTY	Lens Type	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-29901	5050	12	4	30	3810	127
TL-29902	5050	24	4	60	7620	127
TL-29903	5050	36	4	80	10320	129

* 5050: LUMILEDS 5050; 3535: CREE XPG3; 3030: LUMILEDS 3030

Lm: This data is tested under normal working condition, the actual data will depends on environment condition, optics/diffuser and CCT.

GARDEN LIGHT

Patented design



Cornet
TL-GLP-LED09B

Lakota
TL-GLP-LED10B

Casa
TL-GLP-LED10C

City
TL-GLP-LED96

Tiara
TL-GLP-LED19

Beta
TL-GLP-LED19A

TWO SIZE

TL-GLP-LED09S



TL-GLP-LED09B

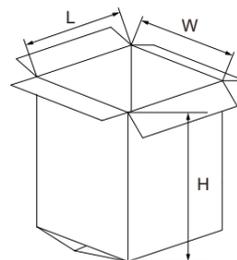


Technical information

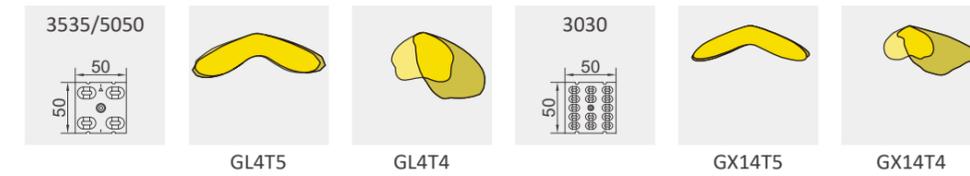
Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70, Ta 25 C	Driver isolation	Class I
Wattags	40~100W	Control dimming	DALI / 1-10V / Timing / PWM
Light efficacy	Up to 148lm/W	Operating temperature	-35°C~50°C / 10% ~ 95% (humidity)
CRI	≥ 70 or ≥ 80	Body parts material	Die cast Aluminum
Color temperature	3000K, 4000K, Amber color	Optic	PC (standard) / PMMA (option)
Operation voltage	AC 90-305V or AC 220-240V	Screen	Flat tempered glass 5mm thickness
Frequency	50 / 60Hz	Gasket	Silicone
Power factor	≥0.95 cos	Color stability	3 or 5 MacAdam steps

Packing Information

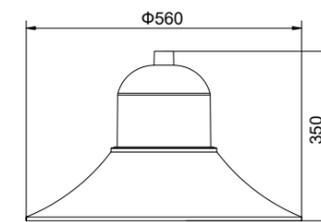
	Carton Size(L*W*H)	QTY/Carton	N.W.(kg)	G.W.(kg)
	575*575*445mm	1	5.6	7.1
	755*755*535mm	1	5.9	7.4



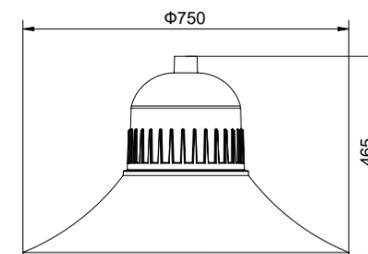
Optics available



Details



TL-GLP-LED09S



TL-GLP-LED09B

Order code	Chip	LED QTY	Lens Type	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-20901	5050	16	4	30	4110	137
TL-20902	3535	16	4	30	3930	131
TL-20903	3030	56	14	40	4880	122

Order code	Chip	LED QTY	Lens Type	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-20904	5050	24	4	40	5360	134
TL-20905	5050	24	4	60	7620	127
TL-20906	5050	36	4	80	10080	126
TL-20907	5050	36	4	100	12400	124
TL-20908	3535	24	4	40	5360	134
TL-20909	3535	24	4	60	7620	127
TL-20910	3535	36	4	80	10080	126
TL-20911	3535	36	4	100	12400	124
TL-20912	3030	84	14	60	7920	132
TL-20913	3030	126	14	80	9760	122
TL-20914	3030	126	14	100	11700	117

* 5050: LUMILEDS 5050; 3535: CREE XPG3; 3030: LUMILEDS 3030

Lm: This data is tested under normal working condition, the actual data will depends on environment condition, optics/diffuser and CCT.

TWO SIZE

TL-GLP-LED09C



TL-GLP-LED09H
ø60mm

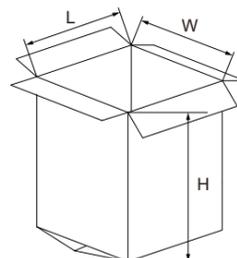


Technical information

Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70, Ta 25 C	Driver isolation	Class I
Wattags	40~100W	Control dimming	DALI / 1-10V / Timing / PWM
Light efficacy	Up to 148lm/W	Operating temperature	-35°C~50°C / 10% ~ 95% (humidity)
CRI	≥ 70 or ≥ 80	Body parts material	Die cast Aluminum
Color temperature	3000K, 4000K, Amber color	Optic	PC (standard) / PMMA (option)
Operation voltage	AC 90-305V or AC 220-240V	Screen	Flat tempered glass 5mm thickness
Frequency	50 / 60Hz	Gasket	Silicone
Power factor	≥0.95 cos	Color stability	3 or 5 MacAdam steps

Packing Information

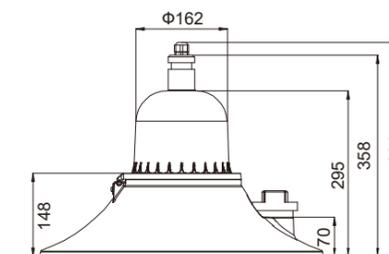
Model	Carton Size(L*W*H)	QTY/Carton	N.W.(kg)	G.W.(kg)
TL-GLP-LED09C	575*575*445mm	1	5.6	7.1
TL-GLP-LED09H	575*575*445mm	1	5.9	7.4



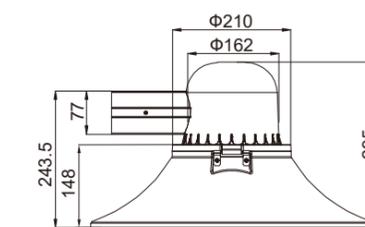
Optics available



Details



TL-GLP-LED09C



TL-GLP-LED09H

Order code	Chip	LED QTY	Lens Type	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-20915	5050	24	4	40	5360	134
TL-20916	5050	24	4	60	7620	127
TL-20917	5050	36	4	80	10080	126
TL-20918	5050	36	4	100	12400	124
TL-20919	3535	24	4	40	5360	134
TL-20920	3535	24	4	60	7620	127
TL-20921	3535	36	4	80	10080	126
TL-20922	3535	36	4	100	12400	124
TL-20923	3030	84	14	60	7920	132
TL-20924	3030	126	14	80	9760	122
TL-20925	3030	126	14	100	11700	117

* 5050: LUMILEDS 5050; 3535: CREE XPG3; 3030: LUMILEDS 3030

lm: This data is tested under normal working condition, the actual data will depends on environment condition, optics/diffuser and CCT.

TL-GLP-LED10B

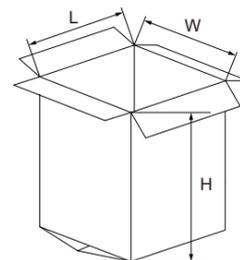


Technical information

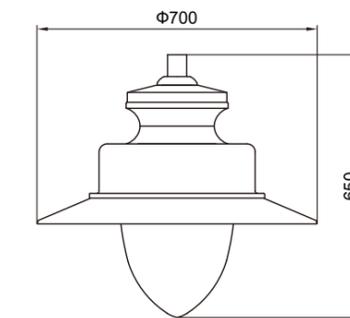
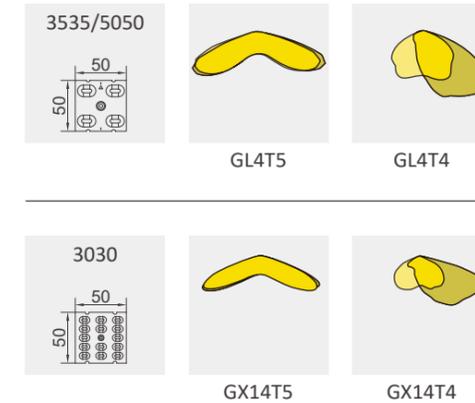
Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70,Ta 25 C	Driver isolation	Class I
Wattags	20~100W	Control dimming	DALI / 1-10V / Timing / PWM
Light efficacy	Up to 117lm/W	Operating temperature	-35°C~50°C / 10% ~ 95% (humidity)
CRI	≥ 70 or ≥ 80	Body parts material	Stretching Aluminum
Color temperature	3000K, 4000K, Amber color	Optic	PC (standard) / PMMA (option)
Operation voltage	AC 90-305V or AC 220-240V	Cover	PC
Frequency	50 / 60Hz	Gasket	Silicone
Power factor	≥0.95 cos	Color stability	3 or 5 MacAdam steps

Packing Information

Model	Carton Size(L*W*H)	QTY/Carton	N.W.(kg)	G.W.(kg)
TL-GLP-LED10B	750*750*690mm	1	10.0	11.3



Optics available



Order code	Chip	LED QTY	Lens Type	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-21001	5050	24	4	40	4400	110
TL-21002	5050	24	4	60	6600	110
TL-21003	5050	36	4	80	8800	110
TL-21004	5050	36	4	100	11000	110
TL-21005	3535	24	4	40	4400	110
TL-21006	3535	24	4	60	6600	110
TL-21007	3535	36	4	80	8800	110
TL-21008	3535	36	4	100	11000	110
TL-21009	3030	84	14	60	6000	100
TL-21010	3030	126	14	80	8000	100
TL-21011	3030	126	14	100	10000	100

* 5050: LUMILEDS 5050; 3535: CREE XPG3; 3030: LUMILEDS 3030

Lm: This data is tested under normal working condition, the actual data will depends on environment condition, optics/diffuser and CCT.

GARDEN LIGHT

Patented design



CLASSIC SERIES

Casa
TL-GLP-LED10C



City
TL-GLP-LED96



Tiara
TL-GLP-LED19



Beta
TL-GLP-LED19A

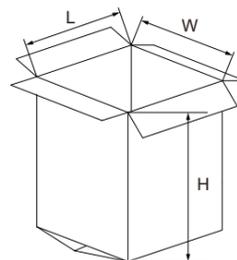


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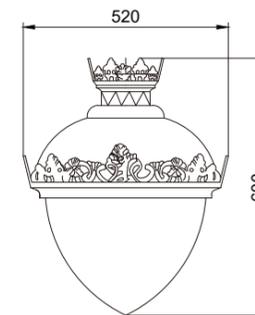
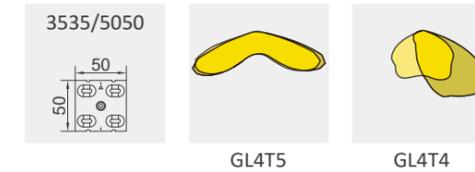
Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70,Ta 25 C	Driver isolation	Class I
Wattags	20~100W	Control dimming	DALI / 1-10V / Timing / PWM
Light efficacy	Up to 117lm/W	Operating temperature	-35°C~50°C / 10% ~ 95% (humidity)
CRI	≥ 70 or ≥ 80	Body parts material	Die cast Aluminum
Color temperature	3000K, 4000K, Amber color	Optic	PC (standard) / PMMA (option)
Operation voltage	AC 90-305V or AC 220-240V	Cover	PC
Frequency	50 / 60Hz	Gasket	Silicone
Power factor	≥0.95 cos	Color stability	3 or 5 MacAdam steps

Packing Information

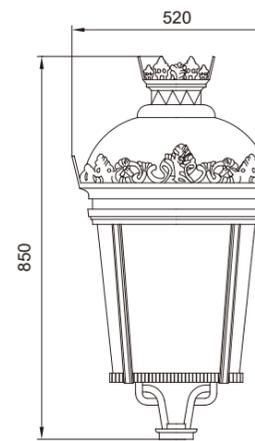
Model	Carton Size(L*W*H)	QTY/Carton	N.W.(kg)	G.W.(kg)
TL-GLP-LED19C	550*550*650mm	1	10.0	11.3
TL-GLP-LED96	540*540*890mm	1	10.0	11.3
TL-GLP-LED19	520*520*965mm	1	10.0	11.3
TL-GLP-LED19A	485*485*415mm	1	10.0	11.3



Optics available



TL-GLP-LED10C



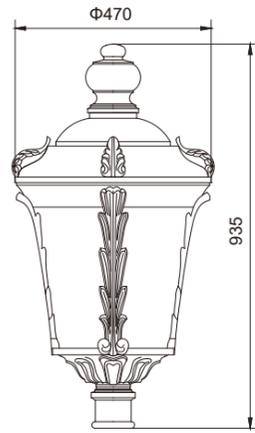
TL-GLP-LED96

Order code	Chip	LED QTY	Lens Type	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-21012	5050	24	4	40	4400	110
TL-21013	5050	24	4	60	6600	110
TL-21014	5050	36	4	80	8800	110
TL-21015	5050	36	4	100	11000	110
TL-21016	3535	24	4	40	4400	110
TL-21017	3535	24	4	60	6600	110
TL-21018	3535	36	4	80	8800	110
TL-21019	3535	36	4	100	11000	110
TL-21020	3030	84	14	60	6000	100
TL-21021	3030	126	14	80	8000	100
TL-21022	3030	126	14	100	10000	100
TL-29601	5050	24	4	40	4400	110
TL-29602	5050	24	4	60	6600	110
TL-29603	5050	36	4	80	8800	110
TL-29604	5050	36	4	100	11000	110
TL-29605	3535	24	4	40	4400	110
TL-29606	3535	24	4	60	6600	110
TL-29607	3535	36	4	80	8800	110
TL-29608	3535	36	4	100	11000	110
TL-29609	3030	84	14	60	6000	100
TL-29610	3030	126	14	80	8000	100
TL-29611	3030	126	14	100	10000	100

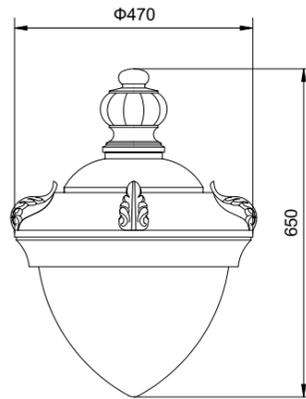
* 5050: LUMILEDS 5050; 3535: CREE XPG3; 3030: LUMILEDS 3030

Lm: This data is tested under normal working condition, the actual data will depends on environment condition, optics/diffuser and CCT.

CODE



TL-GLP-LED19



TL-GLP-LED19A

Order code	Chip	LED QTY	Lens Type	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-21901	5050	24	4	40	4400	110
TL-21902	5050	24	4	60	6600	110
TL-21903	5050	36	4	80	8800	110
TL-21904	5050	36	4	100	11000	110
TL-21905	3535	24	4	40	4400	110
TL-21906	3535	24	4	60	6600	110
TL-21907	3535	36	4	80	8800	110
TL-21908	3535	36	4	100	11000	110
TL-21909	3030	84	14	60	6000	100
TL-21910	3030	126	14	80	8000	100
TL-21911	3030	126	14	100	10000	100

Order code	Chip	LED QTY	Lens Type	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-21912	5050	24	4	40	4400	110
TL-21913	5050	24	4	60	6600	110
TL-21914	5050	36	4	80	8800	110
TL-21915	5050	36	4	100	11000	110
TL-21916	3535	24	4	40	4400	110
TL-21917	3535	24	4	60	6600	110
TL-21918	3535	36	4	80	8800	110
TL-21919	3535	36	4	100	11000	110
TL-21920	3030	84	14	60	6000	100
TL-21921	3030	126	14	80	8000	100
TL-21922	3030	126	14	100	10000	100

* 5050: LUMILEDS 5050; 3535: CREE XPG3; 3030: LUMILEDS 3030

Lm: This data is tested under normal working condition, the actual data will depends on environment condition, optics/diffuser and CCT.

TORO



TORO has super performance can be maximum up to 1200W, which can cover most application area.

- Symmetrical and asymmetrical optics for highway, seaport, airport, train station, stadium
- Excellent heat dissipation management make sure long lifetime
- LED modular engine and easy for replacement and maintenance
- Weight control and make sure it is safe and pass 3G vibration
- DMX control available



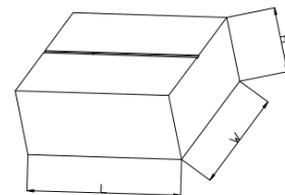


Technical information

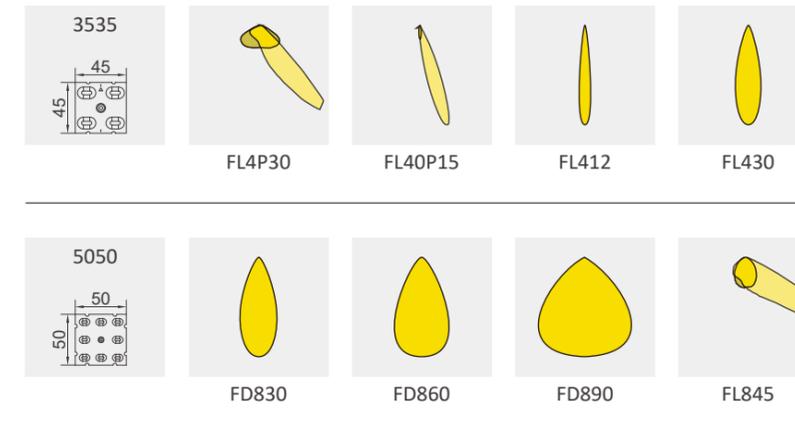
Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70, Ta 25 C	Driver isolation	Class I or Class II
Wattags	100~1200W	Control dimming	DALI / 1-10V / Timing / PWM
Light efficacy	Up to 171lm/W	Operating temperature	-35°C~50°C / 10% ~ 95% (humidity)
CRI	≥ 70 or ≥ 80	Body parts material	ADC12 (standard) / LM6 (option)
Color temperature	3000K, 4000K, 5000K, 6500K	Optic	PC (standard) / PMMA (option)
Operation voltage	AC 90-305V or AC 220-240V	Screen	Flat tempered glass 5mm thickness
Frequency	50 / 60Hz	Gasket	Silicone
Power factor	≥0.95 cos	Color stability	3 or 5 MacAdam steps

Packing Information

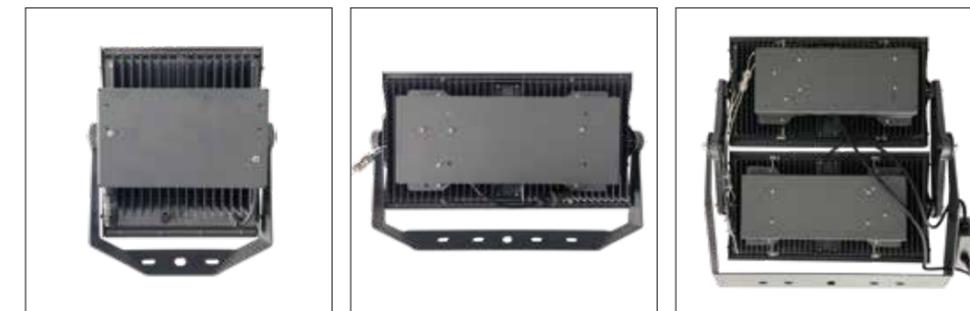
Model	Carton Size(L*W*H)	QTY/Carton	N.W.(kg)	G.W.(kg)
S TL-SLF-LED1000-S	420*380*245mm	1	10.0	11.3
M TL-SLF-LED1000-M	660*405*230mm	1	21.0	22.8
L TL-SLF-LED1000-L	760*730*290mm	1	43.0	45.0



Optics available



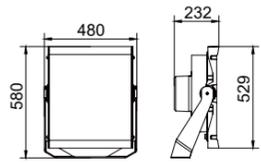
Driver integrated



External Drive

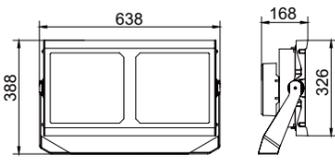


CODE



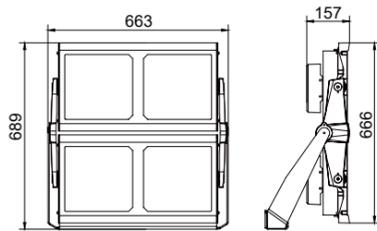
TL-SLF-LED1000S

Order code	Chip	LED QTY	Lens Type	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-3100001	5050	126	8	100	17100	171
TL-3100002	5050	126	8	200	32200	161
TL-3100003	5050	126	8	300	45300	151
TL-3100004	3535	100	4	100	14700	147
TL-3100005	3535	100	4	200	27000	135
TL-3100006	3535	100	4	300	36600	122



TL-SLF-LED1000M

Order code	Chip	LED QTY	Lens Type	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-3100007	5050	252	8	300	48600	162
TL-3100008	5050	252	8	400	64400	161
TL-3100009	5050	252	8	500	77500	155
TL-3100010	5050	252	8	600	90600	151
TL-3100011	3535	200	4	300	42000	140
TL-3100012	3535	200	4	400	54000	135
TL-3100013	3535	200	4	500	64000	128
TL-3100014	3535	200	4	600	73200	122



TL-SLF-LED1000L

Order code	Chip	LED QTY	Lens Type	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-3100015	5050	504	8	600	97200	162
TL-3100016	5050	504	8	800	128800	161
TL-3100017	5050	504	8	1000	155000	155
TL-3100018	5050	504	8	1200	181200	151
TL-3100019	3535	400	4	600	84000	140
TL-3100020	3535	400	4	800	108000	135
TL-3100021	3535	400	4	1000	128000	128
TL-3100022	3535	400	4	1200	146400	122

* 5050: LUMILEDS 5050; 3535: CREE XPG3; 3030: LUMILEDS 3030

lm: This data is tested under normal working condition, the actual data will depends on environment condition, optics/diffuser and CCT.



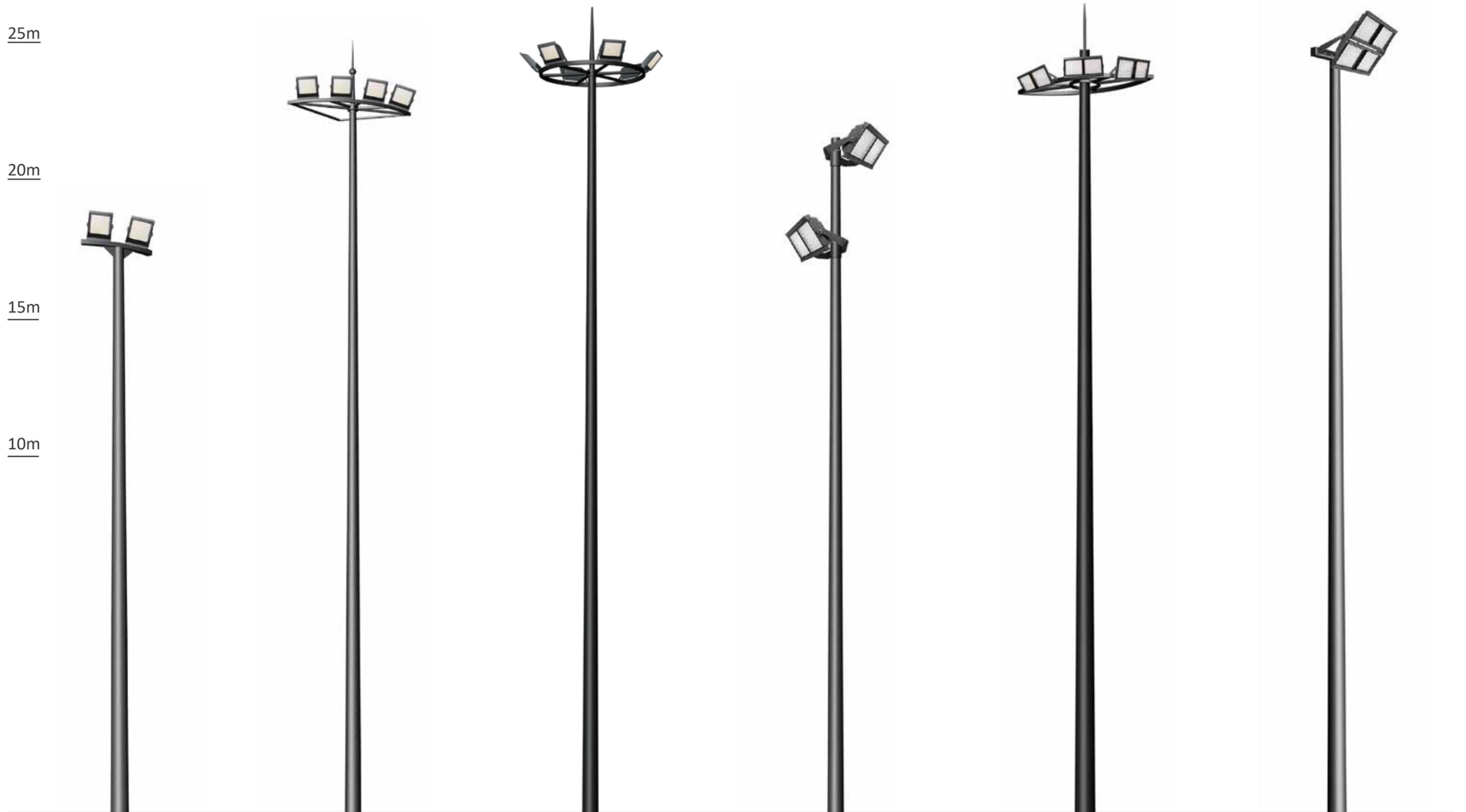
FLOOD LIGHT

25m

20m

15m

10m



Toro Series
TL-SLF-LED1000 Series



COSMICO



COSMICO offers a large variety of lighting needs from recreational sport areas, industry area and even tunnel. Multiple control options ensure increased efficiency with intelligent lighting.

- Symmetrical and asymmetrical optics for highway, seaport, airport, train station, stadium, tunnel
- Excellent heat dissipation management make sure long lifespan
- LED modular engine and easy for replacement and maintenance
- Maintenance convenient&short time- consuming&low cost
- Weight control and make sure it is safe and pass 3G vibration
- Support DALI &City Touch-ready&Zhaga



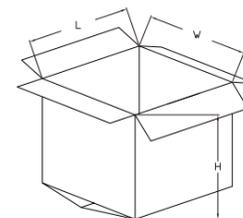


Technical information

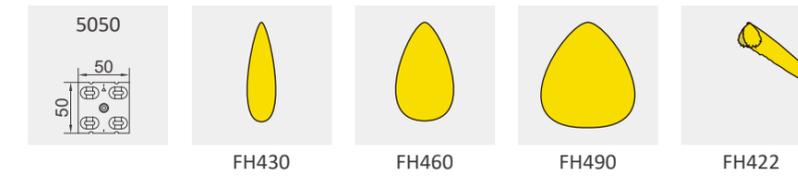
Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70, Ta 25 C	Driver isolation	Class I or Class II
Wattags	30~300W	Control dimming	DALI / 1-10V / Timing / PWM
Light efficacy	Up to 163lm/W	Operating temperature	-35°C~50°C / 10% ~ 95% (humidity)
CRI	≥ 70 or ≥ 80	Body parts material	ADC12 (standard) / LM6 (option)
Color temperature	3000K, 4000K, 5000K, 6500K, RGB	Optic	PC (standard) / PMMA (option)
Operation voltage	AC 90-305V or AC 220-240V	Screen	Flat tempered glass 5mm thickness
Frequency	50 / 60Hz	Gasket	Silicone
Power factor	≥0.95 cos	Color stability	3 or 5 MacAdam steps

Packing Information

Model	Carton Size(L*W*H)	QTY/Carton	N.W.(kg)	G.W.(kg)
XS TL-SLF-LED600-XS	540*315*155mm	1	6.8	7.5
S TL-SLF-LED600-S	610*390*160mm	1	10.5	11.4
M TL-SLF-LED600-M	715*470*165mm	1	15.5	16.5



Optics available



Details

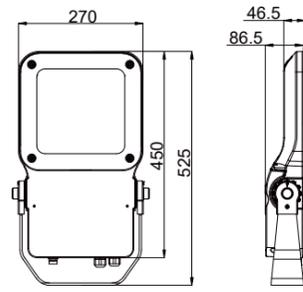


Zhaga base

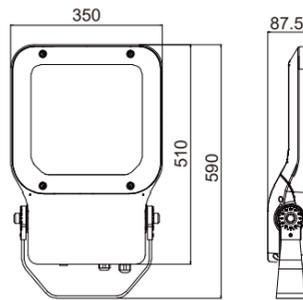


RGB

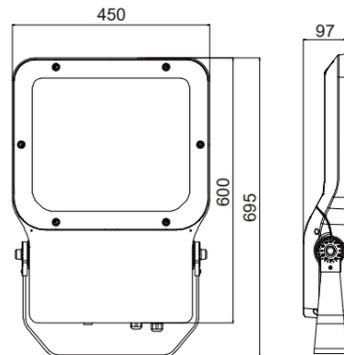
CODE



TL-SLF-LED600XS



TL-SLF-LED600S



TL-SLF-LED600M

Order code	Chip	LED QTY	Lens Type	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-360001	5050	12	4	30	4860	162
TL-360002	5050	24	4	40	6480	162
TL-360003	5050	24	4	60	9540	159
TL-360004	5050	36	4	80	12640	158
TL-360005	5050	36	4	100	15800	158
TL-360006	3535	12	4	30	4860	162
TL-360007	3535	24	4	40	6480	162
TL-360008	3535	24	4	60	9540	159
TL-360009	3535	36	4	80	12640	158
TL-360010	3535	36	4	100	15800	158

Order code	Chip	LED QTY	Lens Type	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-360011	5050	48	4	120	19440	162
TL-360012	5050	48	4	150	24600	164
TL-360013	5050	64	4	180	28440	158
TL-360014	5050	64	4	200	32200	161
TL-360015	3535	48	4	120	19440	162
TL-360016	3535	48	4	150	24600	164
TL-360017	3535	64	4	180	28440	158
TL-360018	3535	64	4	200	32200	161

Order code	Chip	LED QTY	Lens Type	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-360019	5050	80	4	220	35640	162
TL-360020	5050	80	4	250	40500	162
TL-360021	5050	100	4	280	44240	158
TL-360022	5050	100	4	300	47400	158
TL-360023	3535	80	4	220	35640	162
TL-360024	3535	80	4	250	40500	162
TL-360025	3535	100	4	280	44240	158
TL-360026	3535	100	4	300	47400	158

* 5050: LUMILEDS 5050; 3535: CREE XPG3; 3030: LUMILEDS 3030

Lm: This data is tested under normal working condition, the actual data will depends on environment condition, optics/diffuser and CCT.



FLOOD LIGHT

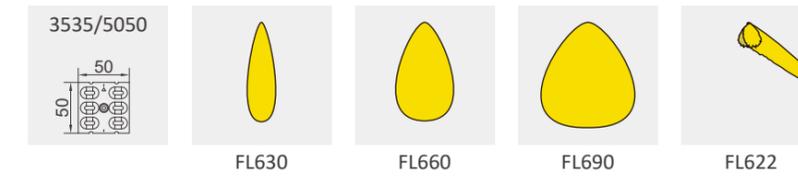


Cosmico Series
TL-SLF-LED600 Series





Optics available



Lens hood

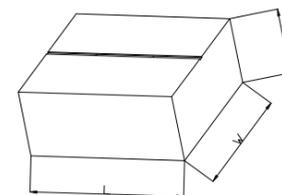


Technical information

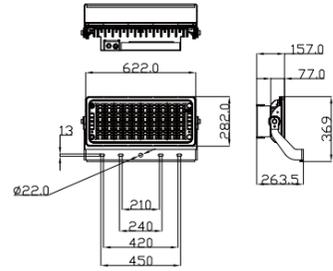
Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70,Ta 25 C	Driver isolation	Class I or Class II
Wattags	300~1500W	Control dimming	DALI / 1-10V / Timing / PWM
Light efficacy	Up to 171lm/W	Operating temperature	-35°C~50°C / 10% ~ 95% (humidity)
CRI	≥ 70 or ≥ 80	Body parts material	ADC12 (standard) / LM6 (option)
Color temperature	3000K, 4000K, 5000K, 6500K	Optic	PC (standard) / PMMA (option)
Operation voltage	AC 90-305V or AC 220-240V	Screen	Flat tempered glass 5mm thickness
Frequency	50 / 60Hz	Gasket	Silicone
Power factor	≥0.95 cos	Color stability	3 or 5 MacAdam steps

Packing Information

Model	Carton Size(L*W*H)	QTY/Carton	N.W.(kg)	G.W.(kg)
S TL-SLF-LED900-S	660*400*300mm	1	/	/
M TL-SLF-LED900-M	770*740*400mm	1	/	/
L TL-SLF-LED900-L	770*1060*450mm	1	/	/

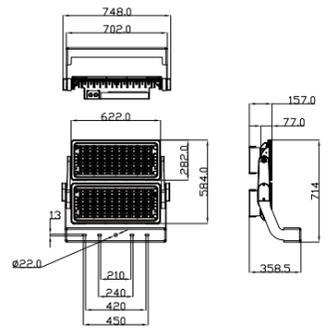


CODE



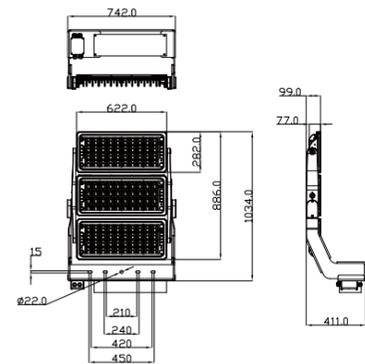
TL-SLF-LED900S

Order code	Chip	LED QTY	Lens Type	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-390001	5050	192	6	300	45000	150
TL-390002	5050	192	6	400	60000	150
TL-390003	5050	240	6	500	75000	150
TL-390004	3535	192	6	300	45000	150
TL-390005	3535	192	6	400	60000	150
TL-390006	3535	240	6	500	75000	150



TL-SLF-LED900M

Order code	Chip	LED QTY	Lens Type	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-390007	5050	384	6	600	90000	150
TL-390008	5050	384	6	700	105000	150
TL-390009	5050	384	6	800	120000	150
TL-390010	5050	480	6	900	135000	150
TL-390011	5050	480	6	1000	150000	150
TL-390012	3535	384	6	600	90000	150
TL-390013	3535	384	6	700	105000	150
TL-390014	3535	384	6	800	120000	150
TL-390015	3535	480	6	900	135000	150
TL-390016	3535	480	6	1000	150000	150



TL-SLF-LED900L

Order code	Chip	LED QTY	Lens Type	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
390017	5050	576	6	1100	165000	150
390018	5050	576	6	1200	180000	150
390019	5050	720	6	1300	195000	150
390020	5050	720	6	1400	210000	150
390021	5050	720	6	1500	225000	150
390022	3535	576	6	1100	165000	150
390023	3535	576	6	1200	180000	150
390024	3535	720	6	1300	195000	150
390025	3535	720	6	1400	210000	150
390026	3535	720	6	1500	225000	150

* 5050: LUMILEDS 5050; 3535: CREE XPG3; 3030: LUMILEDS 3030

Lm: This data is tested under normal working condition, the actual data will depends on environment condition, optics/diffuser and CCT.

FOUR SIZE



TL-SLF-500XS



TL-SLF-500S

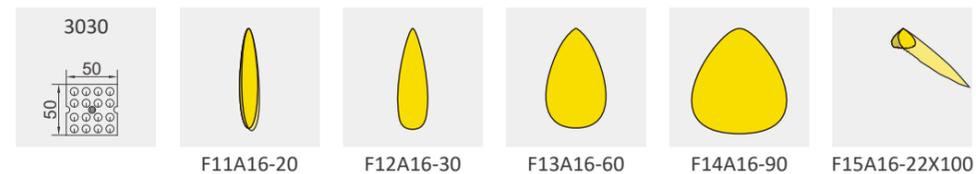


TL-SLF-500M



TL-SLF-500L

Optics available

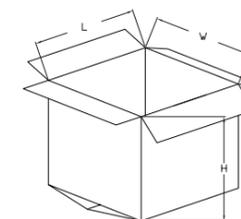


Technical information

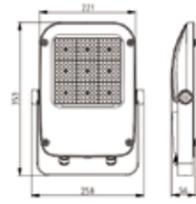
Parameter	Technical data	Parameter	Technical data
Lifetime	20,000hrs	Driver isolation	Class I
Wattags	100~600W	Control dimming	DALI / 1-10V / Timing / PWM
Light efficacy	Up to 140lm/W	Operating temperature	-25°C~50°C / 10% ~ 90% (humidity)
CRI	Ra≥ 70(Default)/Ra≥ 80	Body parts material	ADC12 (standard) / LM6 (option)
Color temperature	2700K ~ 6500K	Optic	PC (standard) / PMMA (option)
Operation voltage	AC 220-240V	Screen	Flat tempered glass 5mm thickness
Frequency	50 / 60Hz	Gasket	Silicone
Power factor	≥0.9 cos	Color stability	3 or 5 MacAdam steps

Packing Information

Model	Carton Size(L*W*H)	QTY/Carton	N.W.(kg)	G.W.(kg)
XS TL-SLF-500-XS	450*300*450mm	6	/	25.2
S TL-SLF-500-S	450*350*350mm	4	/	24.0
M TL-SLF-500-M	660*460*150mm	1	/	12.6
L TL-SLF-500-L	770*590*160	1	/	17.0

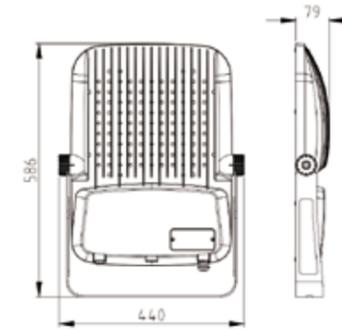


CODE



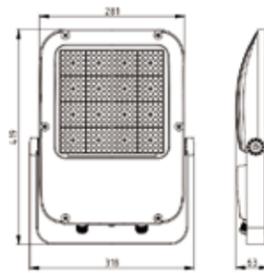
TL-SLF-500XS

Order code	Chip	LED QTY	Lens Type	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-35001	2835	144	16	100	14000	140
TL-35002	2835	144	16	150	21000	140
TL-35003	3030	144	16	100	14000	140
TL-35004	3030	144	16	150	21000	140



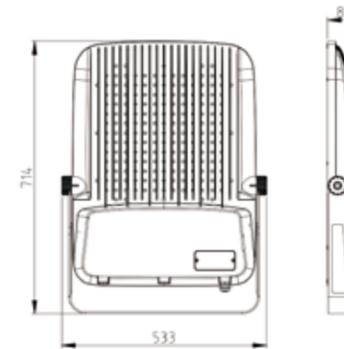
TL-SLF-500M

Order code	Chip	LED QTY	Lens Type	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-350011	2835	480	16	400	56000	140
TL-350012	2835	480	16	500	70000	140
TL-350013	3030	480	16	400	56000	140
TL-350014	3030	480	16	500	70000	140



TL-SLF-500S

Order code	Chip	LED QTY	Lens Type	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-35005	2835	256	16	200	28000	140
TL-35006	2835	256	16	250	35000	140
TL-35007	2835	256	16	300	42000	140
TL-35008	3030	256	16	200	28000	140
TL-35009	3030	256	16	250	35000	140
TL-350010	3030	256	16	300	42000	140



TL-SLF-500L

Order code	Chip	LED QTY	Lens Type	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-350015	2835	784	16	600	84000	140
TL-350016	3030	784	16	600	84000	140

* 5050: LUMILEDS 5050; 3535: CREE XPG3; 3030: LUMILEDS 3030

Lm: This data is tested under normal working condition, the actual data will depends on environment condition, optics/diffuser and CCT.



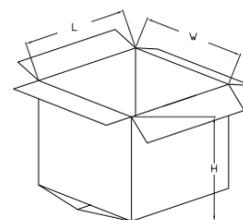


Technical information

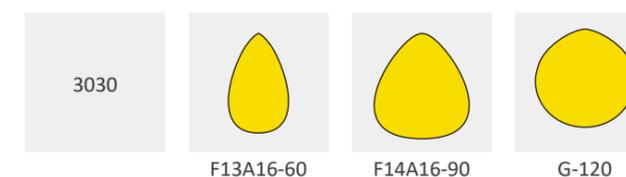
Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70,Ta 25 C	Driver isolation	Class I
Wattags	100~200W	Control dimming	1-10V / Timing / PWM
Light efficacy	Up to 120lm/W	Operating temperature	-35°C~50°C / 10% ~ 95% (humidity)
CRI	≥ 70 or ≥ 80	Body parts material	Die cast Aluminum
Color temperature	3000K, 4000K, Amber color	Optic	PC (standard)
Operation voltage	AC 90-305V or AC 220-240V	Screen	PC
Frequency	50 / 60Hz	Gasket	Silicone
Power factor	≥0.95 cos	Color stability	3 or 5 MacAdam steps

Packing Information

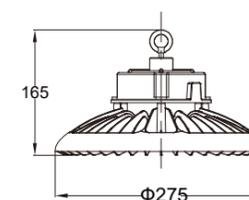
Model	Carton Size(L*W*H)	QTY/Carton	N.W.(kg)	G.W.(kg)
S TL-HBS-LED10A-S	295*295*190mm	1	3.4	4.3
M TL-HBS-LED10A-M	365*365*190mm	1	3.9	4.8
L TL-HBS-LED10A-L	405*405*190mm	1	4.5	5.6



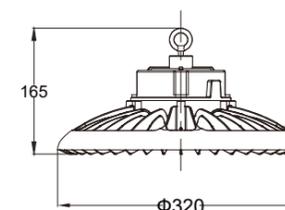
Optics available



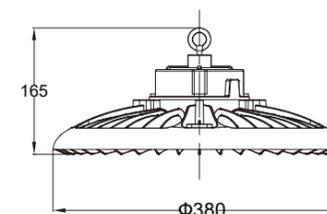
Details



TL-HBS-LED10A-S



TL-HBS-LED10A-M



TL-HBS-LED10A-L

Order code	Chip	LED QTY	Lens Type	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
61001	3030	133	/	100	12000	120

Order code	Chip	LED QTY	Lens Type	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
61002	3030	175	/	150	18000	120

Order code	Chip	LED QTY	Lens Type	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
61003	3030	193	/	200	24000	120

* 5050: LUMILEDS 5050; 3535: CREE XPG3; 3030: LUMILEDS 3030

Lm: This data is tested under normal working condition, the actual data will depends on environment condition, optics/diffuser and CCT.

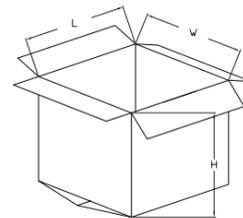


Technical information

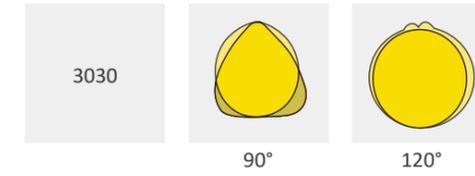
Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70, Ta 25 C	Driver isolation	Class I
Wattags	100~200W	Control dimming	1-10V / Timing / PWM
Light efficacy	Up to 120lm/W	Operating temperature	-35°C~50°C / 10% ~ 95% (humidity)
CRI	≥ 70 or ≥ 80	Body parts material	Die cast Aluminum
Color temperature	3000K, 4000K, 6500K	Optic	PC (standard)
Operation voltage	AC 100-256V	Screen	PC
Frequency	50 / 60Hz	Gasket	Silicone
Power factor	≥0.95 cos	Color stability	3 or 5 MacAdam steps

Packing Information

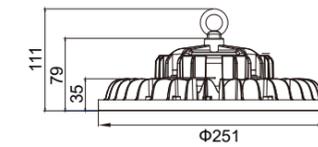
Model	Carton Size(L*W*H)	QTY/Carton	N.W.(kg)	G.W.(kg)
S TL-HBS-LED01-S	265*265*95mm	1	1.5	2.4
M TL-HBS-LED01-M	305*305*100mm	1	2.0	3.1
L TL-HBS-LED01-L	345*345*100mm	1	4.0	5.1



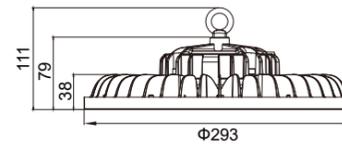
Optics available



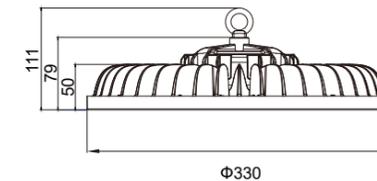
Details



TL-HBS-LED01-S



TL-HBS-LED01-M



TL-HBS-LED01-L

Order code	Chip	LED QTY	Lens Type	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-60101	3030	168	/	100	10000	100

Order code	Chip	LED QTY	Lens Type	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-60102	3030	240	/	150	15000	100

Order code	Chip	LED QTY	Lens Type	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-60103	3030	336	/	200	20000	100

* 3030: LUMILEDS 3030

Lm: This data is tested under normal working condition, the actual data will depends on environment condition, optics/diffuser and CCT.



THREE SIZE

TL-HBS-LED02

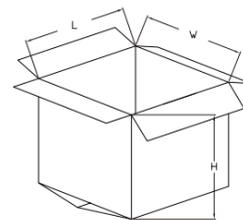
CE IP65 IK09

Technical information

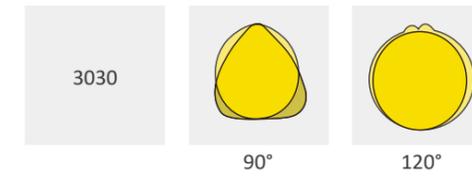
Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70,Ta 25 C	Driver isolation	Class I
Wattags	100~200W	Control dimming	1-10V / Timing / PWM
Light efficacy	Up to 120lm/W	Operating temperature	-35°C~50°C / 10% ~ 95% (humidity)
CRI	≥ 70 or ≥ 80	Body parts material	Die cast Aluminum
Color temperature	3000K, 4000K, 6500K	Optic	PC (standard)
Operation voltage	AC 100-256V	Screen	PC
Frequency	50 / 60Hz	Gasket	Silicone
Power factor	≥0.95 cos	Color stability	3 or 5 MacAdam steps

Packing Information

Model	Carton Size(L*W*H)	QTY/Carton	N.W.(kg)	G.W.(kg)
S TL-HBS-LED02-S	270*110*272mm	1	1.5	2.4
M TL-HBS-LED02-M	320*105*322mm	1	2.0	3.1
L TL-HBS-LED02-L	355*115*357mm	1	2.6	3.8



Optics available



Details



TL-HBS-LED02-S



TL-HBS-LED02-M



TL-HBS-LED02-L

Order code	Chip	LED QTY	Lens Type	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-60201	3030	141	/	100	10000	100

Order code	Chip	LED QTY	Lens Type	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-60202	3030	198	/	150	15000	100

Order code	Chip	LED QTY	Lens Type	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-60203	3030	282	/	200	20000	100

* 3030: LUMILEDS 3030

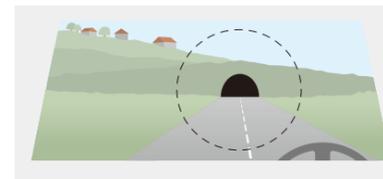
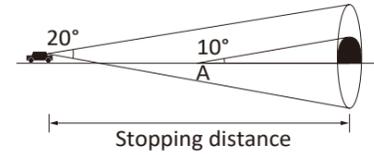
Lm: This data is tested under normal working condition, the actual data will depends on environment condition, optics/diffuser and CCT.

VISUAL ADJUSTMENT

The visual adjustment from high luminance to low luminance while driving is not instantaneous. This is caused by 2 disability phenomena:

1. Spatial adaptation: the large difference in luminance between the outside and the inside of the tunnel will impede the vision of the driver when he is at the adaptation point ('A', opposite). The "Black Hole" phenomenon engenders a feeling of discomfort and insecurity.

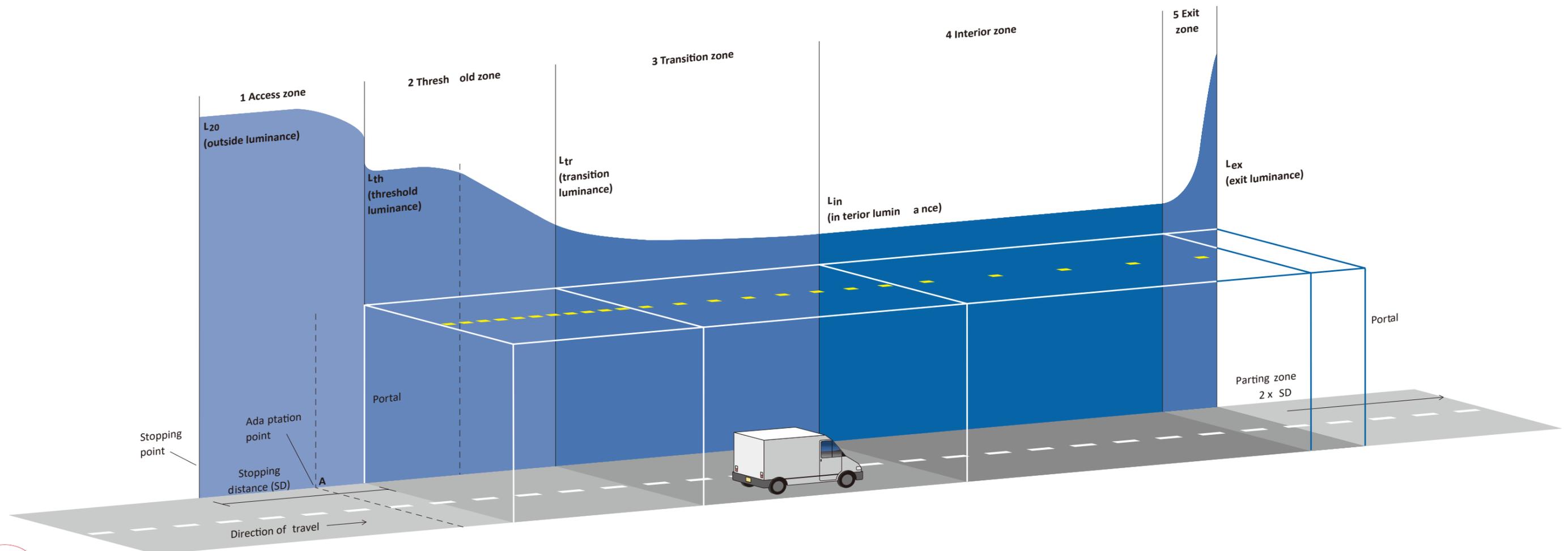
2. Temporal adaptation: human eyes need more time to adapt from brightness to darkness than the reverse. During this period of adaptation, the distance travelled is a critical factor.



TYPICAL ARRANGEMENTS

The table below outlines some of the mounting options available and their respective advantages/disadvantages

	Arrangement type	Advantages	Disadvantages
Ceiling mounting	Above road on several rows	<ul style="list-style-type: none"> • best utilisation factor for luminaires • glare limited 	<ul style="list-style-type: none"> • luminaires concealed by signs • heavy fixings
	1 row above road	<ul style="list-style-type: none"> • less investment and maintenance 	<ul style="list-style-type: none"> • closure of carriageway required
Wall mounting	Twin opposite	<ul style="list-style-type: none"> • easier access to luminaires • 1 lane only need be closed 	<ul style="list-style-type: none"> • utilisation factor downgraded • high glare
	Single sided	<ul style="list-style-type: none"> • less investment and maintenance 	<ul style="list-style-type: none"> • beware trucks blocking light





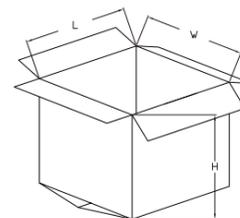
CB

Technical information

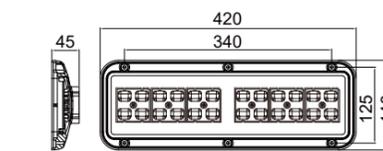
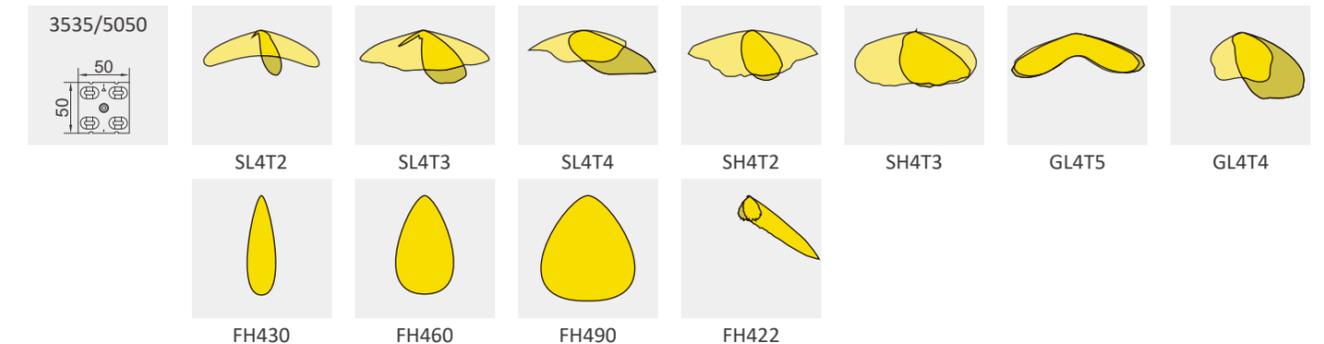
Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70,Ta 25 C	Driver isolation	Class I or Class II
Wattags	30~120W	Control dimming	DALI / 1-10V / Timing / PWM
Light efficacy	Up to 150lm/W	Operating temperature	-35°C~50°C / 10% ~ 95% (humidity)
CRI	≥ 70 or ≥ 80	Body parts material	ADC12 (standard) / LM6 (option)
Color temperature	3000K, 4000K, 5000K, 6500K	Optic	PC (standard) / PMMA (option)
Operation voltage	AC 90-305V or AC 220-240V	Screen	Flat tempered glass 5mm thickness
Frequency	50 / 60Hz	Gasket	Silicone
Power factor	≥0.95 cos	Color stability	3 or 5 MacAdam steps

Packing Information

Model	Carton Size(L*W*H)	QTY/Carton	N.W.(kg)	G.W.(kg)
S TL-SLF-LED01S	295*295*190mm	1	3.4	4.3
M TL-SLF-LED01M	365*365*190mm	1	3.9	4.8

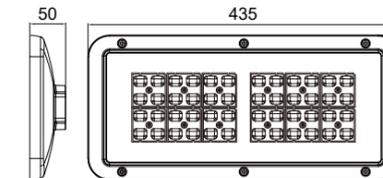


Optics available



TL-SLF-LED01S

Order code	Chip	LED QTY	Lens Type	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-40101	5050	16	4	30	4500	150
TL-40102	5050	24	4	60	9000	150



TL-SLF-LED01M

Order code	Chip	LED QTY	Lens Type	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-40103	5050	32	4	80	11840	150
TL-40104	5050	48	4	100	15600	150
TL-40105	5050	48	4	120	18000	150

* 5050: LUMILEDS 5050; 3535: CREE XPG3; 3030: LUMILEDS 3030

lm: This data is tested under normal working condition, the actual data will depends on environment condition, optics/diffuser and CCT.

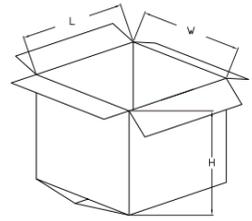


Technical information

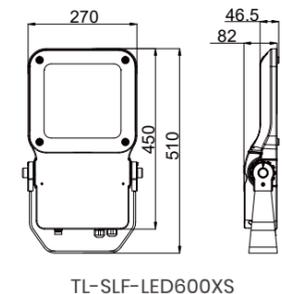
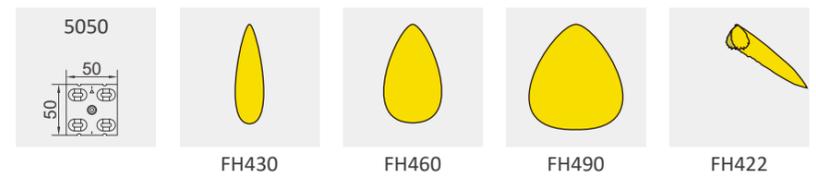
Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70, Ta 25 C	Driver isolation	Class I or Class II
Wattags	30~100W	Control dimming	DALI / 1-10V / Timing / PWM
Light efficacy	Up to 162lm/W	Operating temperature	-35°C~50°C / 10% ~ 95% (humidity)
CRI	≥ 70 or ≥ 80	Body parts material	ADC12 (standard) / LM6 (option)
Color temperature	3000K, 4000K, 5000K, 6500K	Optic	PC (standard) / PMMA (option)
Operation voltage	AC 90-305V or AC 220-240V	Screen	Flat tempered glass 5mm thickness
Frequency	50 / 60Hz	Gasket	Silicone
Power factor	≥0.95 cos	Color stability	3 or 5 MacAdam steps

Packing Information

Model	Carton Size(L*W*H)	QTY/Carton	N.W.(kg)	G.W.(kg)
XS TL-SLF-LED600XS	540*315*155mm	1	6.8	7.5



Optics available

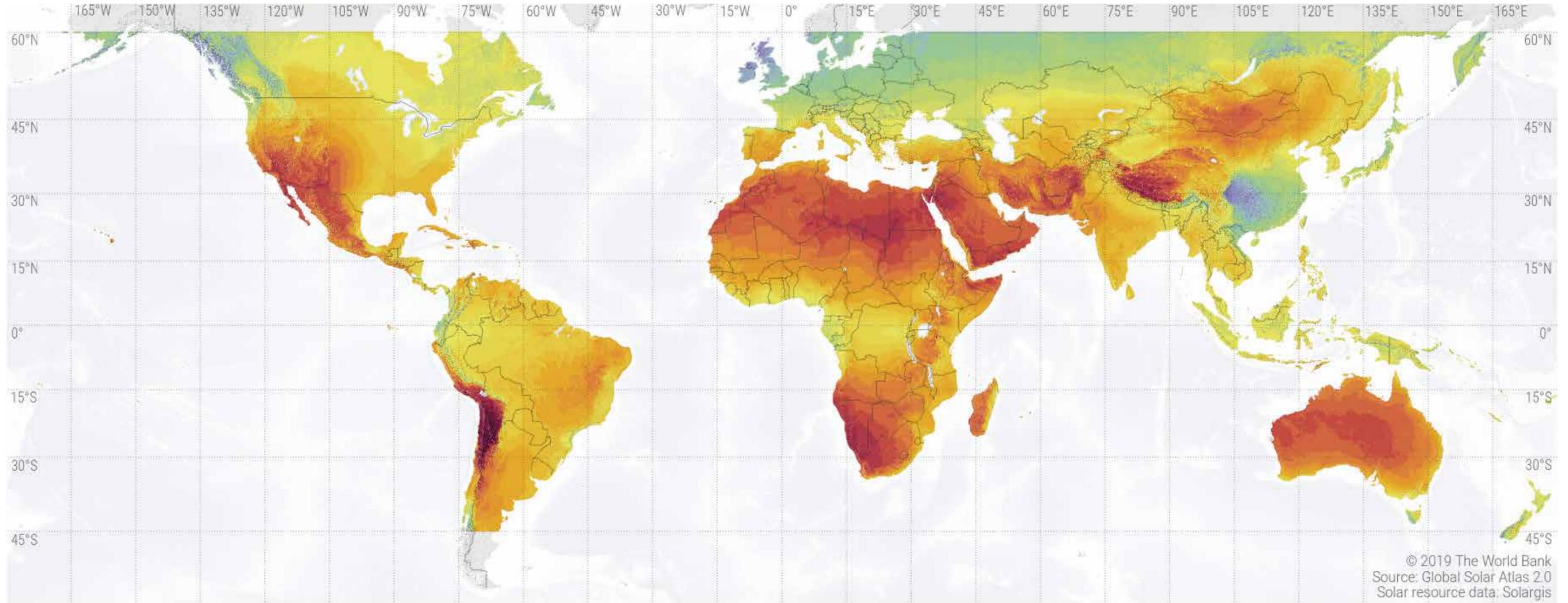


Order code	Chip	LED QTY	Lens Type	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-360001	5050	12	4	30	4860	162
TL-360002	5050	24	4	40	6480	162
TL-360003	5050	24	4	60	9540	159
TL-360004	5050	36	4	80	12640	158
TL-360005	5050	36	4	100	15800	158
TL-360006	3535	12	4	30	4860	162
TL-360007	3535	24	4	40	6480	162
TL-360008	3535	24	4	60	9540	159
TL-360009	3535	36	4	80	12640	158
TL-360010	3535	36	4	100	15800	158

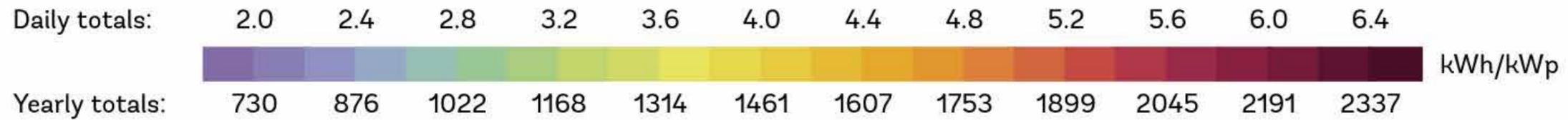
* 5050: LUMILEDS 5050; 3535: CREE XPG3; 3030: LUMILEDS 3030
 Lm: This data is tested under normal working condition, the actual data will depends on environment condition, optics/diffuser and CCT.

SOLAR RESOURCE MAP

Photovoltaic Power Potential (PVOUT)



Long-term average of photovoltaic power potential (PVOUT)



SOLAR STREET LIGHT

1. For the purpose of preparing a best solar lighting system scheme for you, what information are you required to provide for me?

- Detailed installation locations, on the local sunshine peak time of which we need to be based for calculation of the configuration of the solar lighting system for you.
- How many hours are the street lights required to work each day (such as 5 or 10 hours each day)?
- When the rainy season comes, how many consecutive rainy days (such as 3 or 4 days) are required to be guaranteed to keep the street lights working normally for your illumination?
- Height of lamp poles or width of roads.
- Brightness of street lights required.

2. What is the sunshine peak time?

The sunshine peak time is referred to the unit strength of the sunlight reaching the earth every hour, on the basis of which we can analyze the climate and the weather. The time of the strongest intensity of the sunlight measured should be at noon, within 3 ~ 4 hours before and after noon (varying depending on the region to be located), the charging effect of the sunlight on the solar panels is the best (of course, the hottest time in summer may perhaps be excluded)

3. How to know when the solar street lights are turned on turned off?

The controller we choose for use is an intelligent waterproof controller composed of a light controller and a time controller, and, with it installed, no man-made control is needed later on and the solar street lights shall be turned on or turned off on time. As the controller is equivalent to the position of a human heart, which is connected with the solar panels absorbing sunlight and the storage batteries and the light source for lighting, when it senses the voltage of solar panel dropping down to the level set up, it will open the circuit of lighting source and, when the time we set up (for example, 10 hours) arrives, it will automatically turn off the light source. This is what we call the technology of intelligent light control switching-on and time control switching-off. Besides, there are multiple functions in this controller, such as those to prevent battery overcharge or overdischarge, so as not to cause any damage to the battery. will automatically turn off the light source. This is what we call the technology of intelligent light control switching-on and time control switching-off. Besides, there are multiple functions in this controller, such as those to prevent battery overcharge or overdischarge, so as not to cause any damage to the battery.

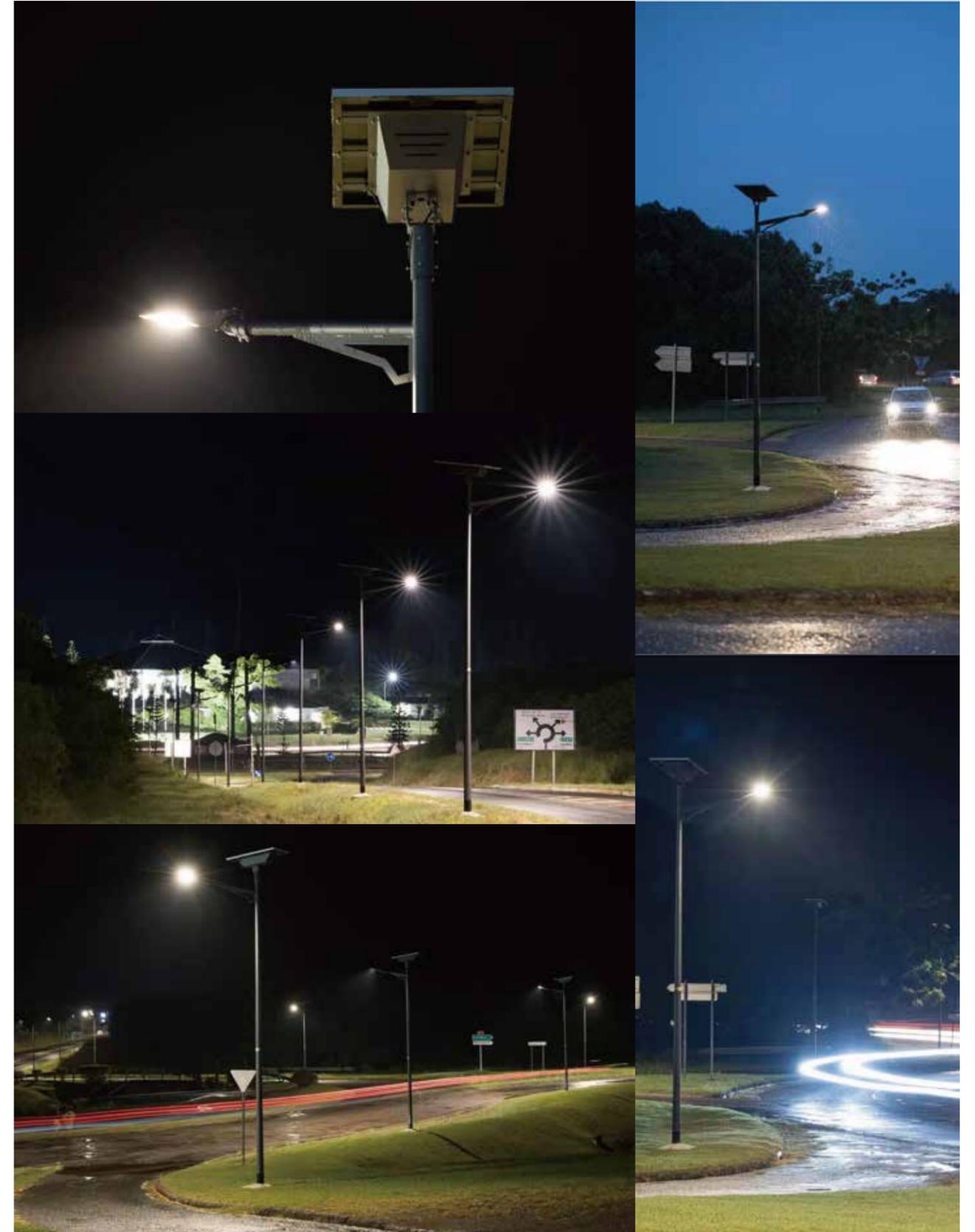
4. If there are several consecutive rainy days occurring, what shall we do? Can it be working normally?

If there are several bad weather, cloudy or rainy days occurring recently, there is no need for you to worry about, as we have taken them into our consideration. When we made the scheme for you, we could make full preparations in advance. 3 days or 5 days, you may decide as you please. As long as there are regular and continuous overcast or rainy days occurring, there will be continuous lighting. However, remember that, when making the scheme, what we need to consider is the regular, continuous days and, for the individual time of consecutive overcast or rainy days, it is not recommended to design according to the individual time, because it will increase your costs a lot.

5. How to maintain the solar system?

There is not too much maintenance required for the solar energy system intuitively and this is the convenience in it, but if there is too much dust locally, it is recommended that you should clean the solar cell panels every 3 to 5 months, so as to keep its high efficiency.

PROJECT

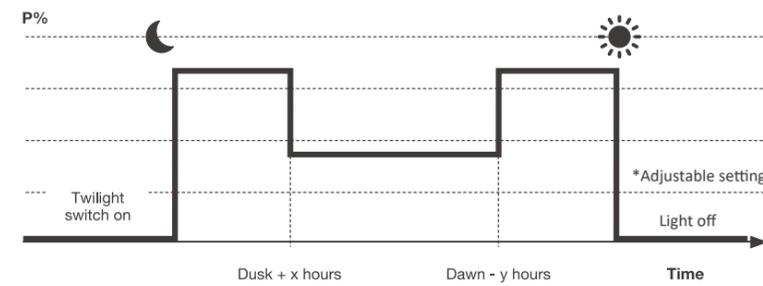


SOLAR STREET LIGHT

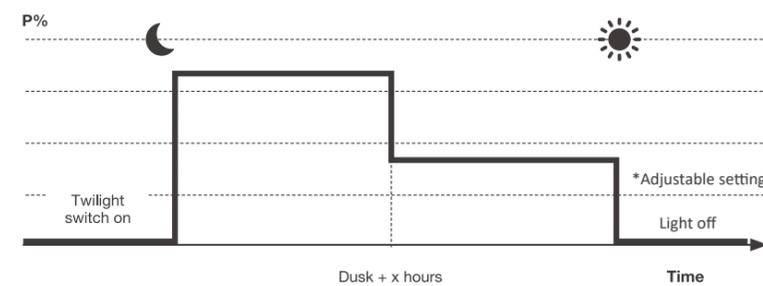
Patented design



PROGRAMMING



▶ 100% power for x hours after dusk then dim to 50% in the middle of the night and get back to full power y hours before dawn.



▶ 100% power for x hours after dusk, then dim to 50% up to dawn.

*other operating programs available

For each project and each geographical zone, Hosca completes a detailed energy balance to validate the required operating program.



Solar panel



Compact LiFePO4 lithium battery



Controller

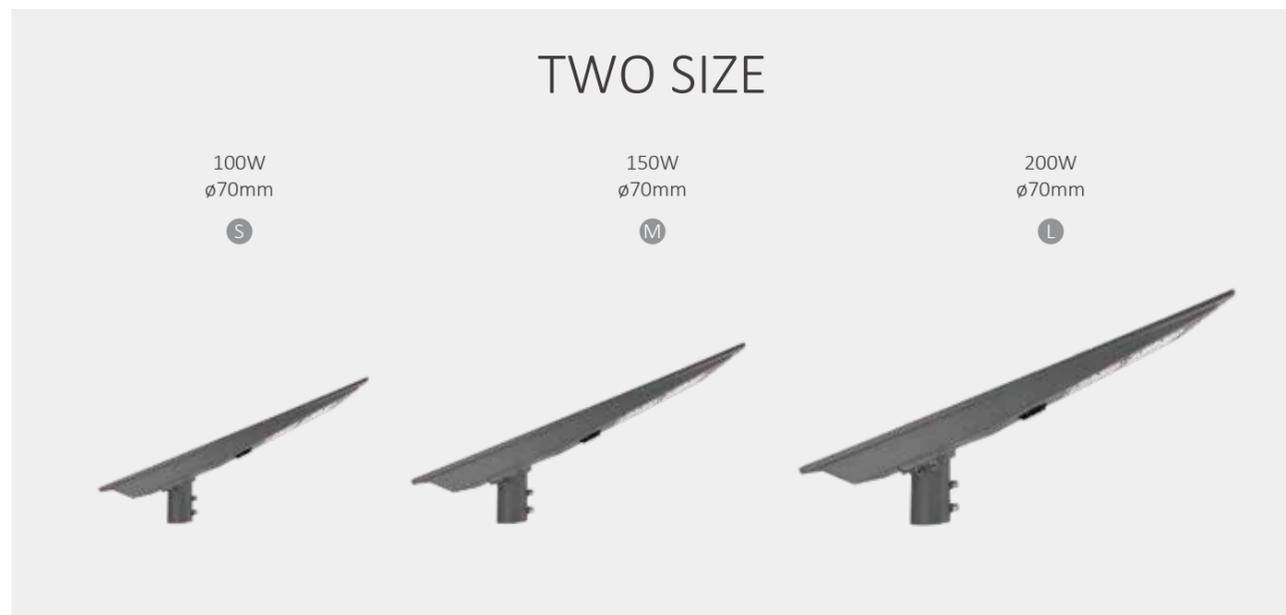


Remote Control

Code

Code	Lamp wattage	Solar panel	Controller	Battery	Cable	LED lamp	Lumen output
TL-70101	20W	80W---18V, Mono 1200*540*30mm	10A/12V waterproof solar charge controller, dusk to dawn with dim brightness. Combined into battery case.100%@4H-->40%@8H	36AH/12.8V LiFe PO4 battery with 24pcs 32650 (4S6P)	5m 2*2.5mm ²	20W--36VDC	About 2800lumens
TL-70102	30W	100W---18V, Mono 1020*670*30mm	10A/12V waterproof solar charge controller, dusk to dawn with dim brightness. Combined into battery case.100%@4H-->40%@8H	48AH/12.8V LiFe PO4 battery with 32pcs 32650 (4S8P)	5m 2*2.5mm ²	30W--36VDC	About 4200lumens
TL-70103	40W	140W---18V, Mono 1480*680*35mm	10A/12V waterproof solar charge controller, dusk to dawn with dim brightness. Combined into battery case.100%@4H-->40%@8H	72AH/12.8V LiFe PO4 battery with 48pcs 32650 (4S12P)	5m 2*2.5mm ²	40W--36VDC	About 5600lumens
TL-70104	50W	160W---18V, Mono 1480*680*35mm	15A/12V waterproof solar charge controller, dusk to dawn with dim brightness. Combined into battery case.100%@4H-->40%@8H	90AH/12.8V LiFe PO4 battery with 60pcs 32650 (4S15P)	5m 2*2.5mm ²	50W--36VDC	About 7000lumens
TL-70105	60W	200W---18V, Mono 1320*992*35mm	20A/12V waterproof solar charge controller, dusk to dawn with dim brightness. Combined into battery case.100%@4H-->40%@8H	108AH/12.8V LiFe PO4 battery with 72pcs 32650 (4S18P)	5m 2*2.5mm ²	60W--36VDC	About 8400lumens
TL-70106	70W	120W*2---18V, Mono 1200*670*35mm	20A/24V waterproof solar charge controller, dusk to dawn with dim brightness. Combined into battery case.100%@4H-->40%@8H	66AH/25.6V LiFe PO4 battery with 88pcs 32650 (8S11P)	5m 2*2.5mm ²	70W--36VDC	About 9800lumens
TL-70107	80W	140W*2---18V, Mono 1480*680*35mm	20A/24V waterproof solar charge controller, dusk to dawn with dim brightness. Combined into battery case.100%@4H-->40%@8H	72AH/25.6V LiFe PO4 battery with 96pcs 32650 (8S12P)	5m 2*2.5mm ²	80W--36VDC	About 11200lumens



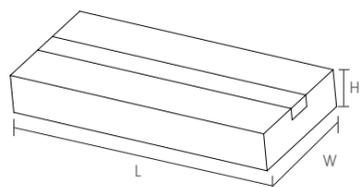


Technical information

Parameter	Technical data	Parameter	Technical data
Battery Parameters	LiFePO4	Sensors	Micro Wave Sensor
Wattags	100W~200W	Operating temperature	-25°C~65°C / 10% ~ 95% (humidity)
Light efficacy	Up to 160lm/W	Battery Parameters	LiFePO4 3.2V 14AH / 28AH / 35AH
Color temperature	3000K - 6500K	Solar Pannel type	5V 20W/5V 24W/5V 28W, Polycrystalline
Charge Time	6~8 Hours	Input Voltage	3.2V
Working Time	2 Rainy Days	Protection Grade	IP65 & IK06

Packing Information

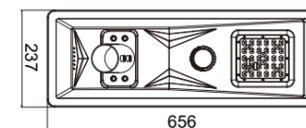
Model	Carton Size(L*W*H)	QTY/Carton	N.W.(kg)	G.W.(kg)
S TL-SRL-LED04S	275*100*800mm	4	4.4	4.9
M TL-SRL-LED04M	275*100*915mm	4	5.0	5.6
L TL-SRL-LED04L	275*100*1020mm	3	5.8	6.5



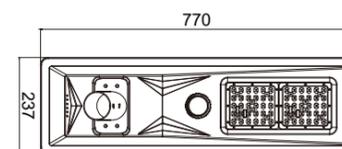
Optics available



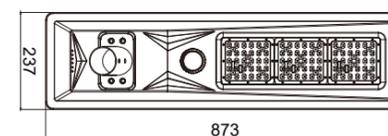
Details



RL



TL-SRL-



TL-SRL-

Order code	Chip	LED QTY	Voltage	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
	3030	SMD	3.2V	100	16000	160

Order code	Chip	LED QTY	Voltage	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
	3030	SMD	3.2V	150	24000	160

Order code	Chip	LED QTY	Voltage	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
	3030	SMD	3.2V	200	32000	160

* 3030: BRIDGELUX

Lm: This data is tested under normal working condition, the actual data will depends on environment condition, optics/diffuser and CCT.

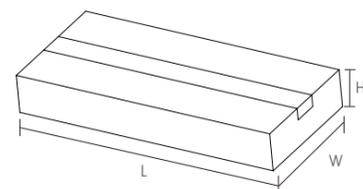


Technical information

Parameter	Technical data	Parameter	Technical data
Battery Parameters	LiFePO4	Sensors	Micro Wave Sensor
Wattags	10W~30W	Operating temperature	-10°C~60°C / 10% ~ 90% (humidity)
Light efficacy	Up to 150lm/W	Battery Parameters	LiFePO4 3.2V 36AH / 72AH / 108AH
Color temperature	3000K - 6500K	Solar Pannel type	5V 25W/5V 50W/5V 70W, Polycrystalline
Charge Time	6~8 Hours	Input Voltage	3.2V
Working Time	2 Rainy Days	Protection Grade	IP65 & IK08

Packing Information

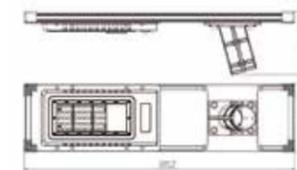
Model	Carton Size(L*W*H)	QTY/Carton	N.W.(kg)	G.W.(kg)
S TL-SRL-LED05S	917*276*120mm	1	7.0	8.2
M TL-SRL-LED05M	917*433*120mm	1	10.8	12.0
L TL-SRL-LED05L	1172*433*120mm	1	12.6	14.1



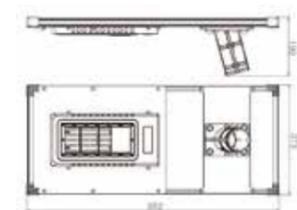
Optics available



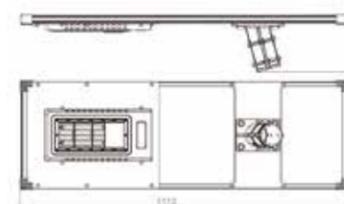
Details



TL-SRL-LED05S



TL-SRL-LED05M



TL-SRL-LED05L

Order code	Chip	LED QTY	Voltage	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-70501	3030	SMD	3.2V	10	1500	150

Order code	Chip	LED QTY	Voltage	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-70502	3030	SMD	3.2V	20	3000	150

Order code	Chip	LED QTY	Voltage	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-70503	3030	SMD	3.2V	30	4500	150

* 3030: BRIDGELUX

Lm: This data is tested under normal working condition, the actual data will depends on environment condition, optics/diffuser and CCT.



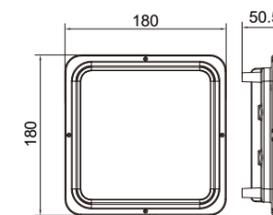
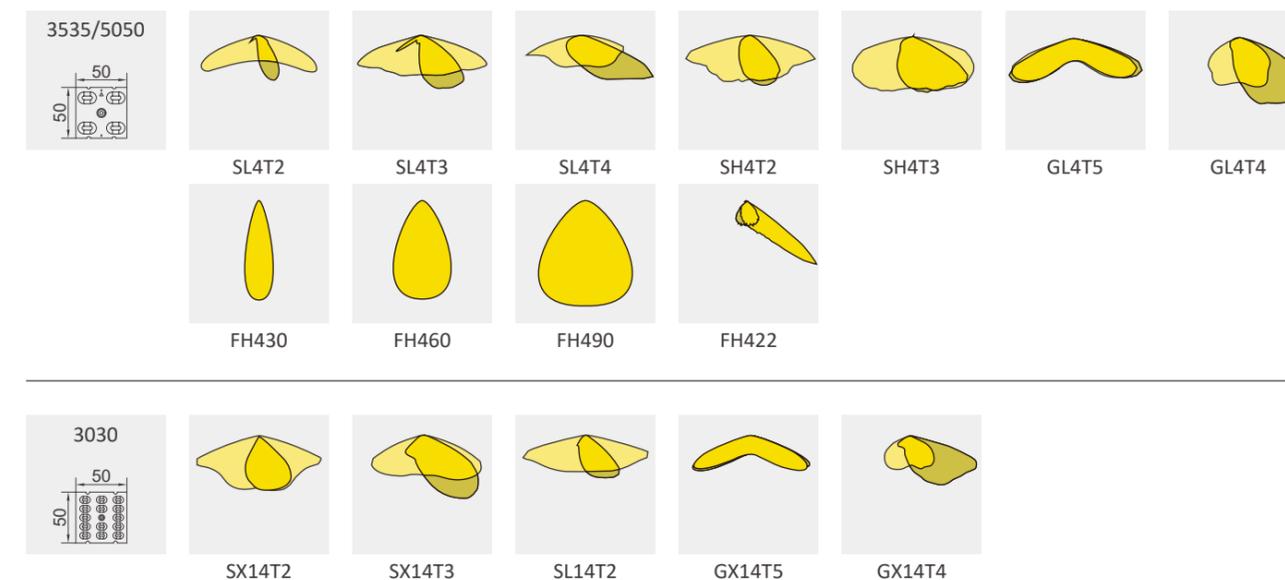
Technical information

Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70, Ta 25 °C	Driver isolation	Class I or Class II
Wattags	10~100W	Control dimming	DALI / 1-10V / Timing / PWM
Light efficacy	Up to 137lm/W	Operating temperature	-35°C~50°C / 10% ~ 95% (humidity)
CRI	≥ 70 or ≥ 80	Body parts material	Die cast Aluminum
Color temperature	3000K, 4000K, Amber color	Optic	PC (standard) / PMMA (option)
Operation voltage	AC 90-305V or AC 220-240V	Screen	Flat tempered glass 5mm thickness
Frequency	50 / 60Hz	Gasket	Silicone
Power factor	≥0.95 cos	Color stability	3 or 5 MacAdam steps

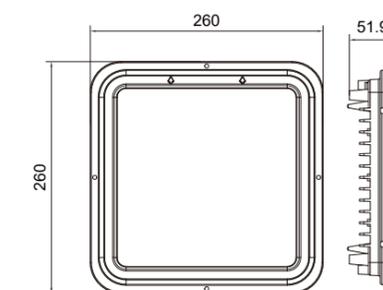
Details



Optics available



TL-LRE-LED01S



TL-LRE-LED01M

Order code	Chip	LED QTY	Lens Type	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-90101	5050	16	4	30	4110	137
TL-90102	3535	16	4	30	3930	131
TL-90103	3030	56	14	40	4880	122

Order code	Chip	LED QTY	Lens Type	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-90104	5050	24	4	40	5360	134
TL-90105	5050	24	4	60	7620	127
TL-90106	5050	36	4	80	10080	126
TL-90107	5050	36	4	100	12400	124
TL-90108	3535	24	4	40	5360	134
TL-90109	3535	24	4	60	7620	127
TL-90110	3535	36	4	80	10080	126
TL-90111	3535	36	4	100	12400	124
TL-90112	3030	84	14	60	7920	132
TL-90113	3030	126	14	80	9760	122
TL-90114	3030	126	14	100	11700	117

* 5050: LUMILEDS 5050; 3535: CREE XPG3; 3030: LUMILEDS 3030

lm: This data is tested under normal working condition, the actual data will depends on environment condition, optics/diffuser and CCT.

TL-LRE-LED06



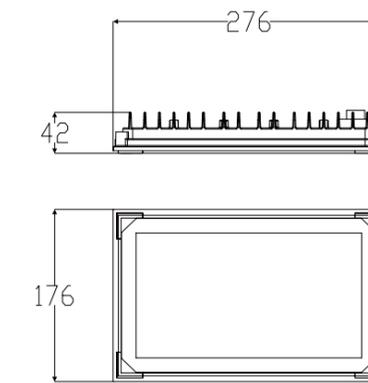
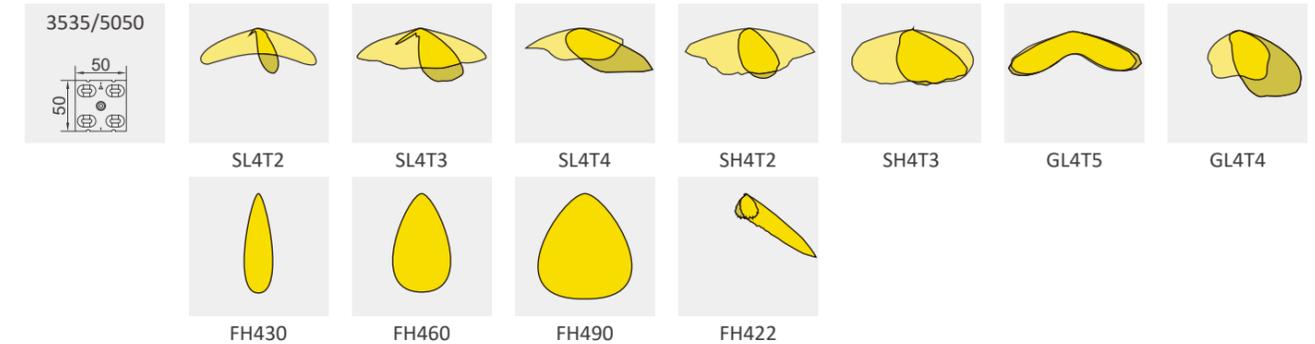
Technical information

Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70,Ta 25 C	Driver isolation	Class I
Wattags	20~80W	Control dimming	1-10V / PWM
Light efficacy	Up to 150lm/W	Operating temperature	-35°C~50°C / 10% ~ 95% (humidity)
CRI	≥ 70 or ≥ 80	Body parts material	Die cast Aluminum
Color temperature	3000K, 4000K, Amber color	Optic	PC (standard) / PMMA (option)
Operation voltage	AC 90-305V or AC 220-240V	Screen	Flat tempered glass 5mm thickness
Frequency	50 / 60Hz	Gasket	Silicone
Power factor	≥0.95 cos	Color stability	3 or 5 MacAdam steps

Details



Optics available



TL-LRE-LED06

Order code	Chip	LED QTY	Lens Type	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-90601	5050	16	4	20	3000	150
TL-90602	5050	16	4	30	4500	150
TL-90603	5050	16	4	40	6000	150
TL-90604	5050	32	4	50	7500	150
TL-90605	5050	32	4	60	9000	150
TL-90606	5050	32	4	70	10500	150
TL-90607	5050	32	4	80	12000	150

* 5050: LUMILEDS 5050; 3535: CREE XPG3; 3030: LUMILEDS 3030

Lm: This data is tested under normal working condition, the actual data will depends on environment condition, optics/diffuser and CCT.

TL-LRE-LED02



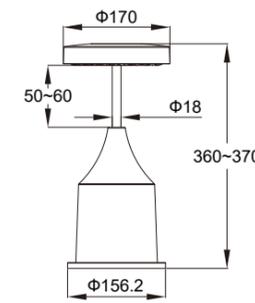
Technical information

Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70, Ta 25 C	Driver isolation	Class I or Class II
Wattags	30~50W	Control dimming	DALI / 1-10V / Timing / PWM
Light efficacy	Up to 130lm/W	Operating temperature	-35°C~50°C / 10% ~ 95% (humidity)
CRI	≥ 70 or ≥ 80	Body parts material	Die cast Aluminum
Color temperature	3000K, 4000K, Amber color	Optic	PC (standard) / PMMA (option)
Operation voltage	AC 90-305V or AC 220-240V	Screen	Flat tempered glass 5mm thickness
Frequency	50 / 60Hz	Gasket	Silicone
Power factor	≥0.95 cos	Color stability	3 or 5 MacAdam steps

Optics available



Detail



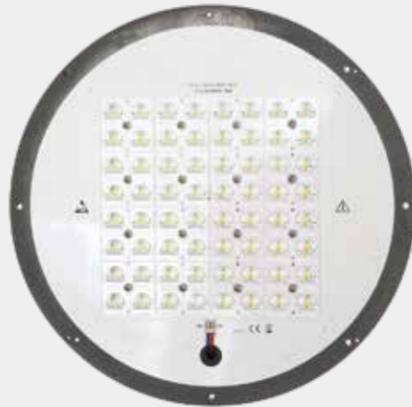
TL-LRE-LED02

Order code	Chip	LED QTY	Lens Type	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-90201	5050	24	24	30	3900	130
TL-90202	5050	30	30	40	5200	130
TL-90203	5050	36	36	50	6500	130

* 5050: LUMILEDS 5050; 3535: CREE XPG3; 3030: LUMILEDS 3030

Lm: This data is tested under normal working condition, the actual data will depends on environment condition, optics/diffuser and CCT.

TL-LRE-LED04



IP66

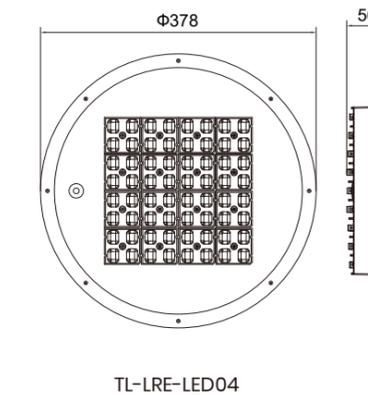
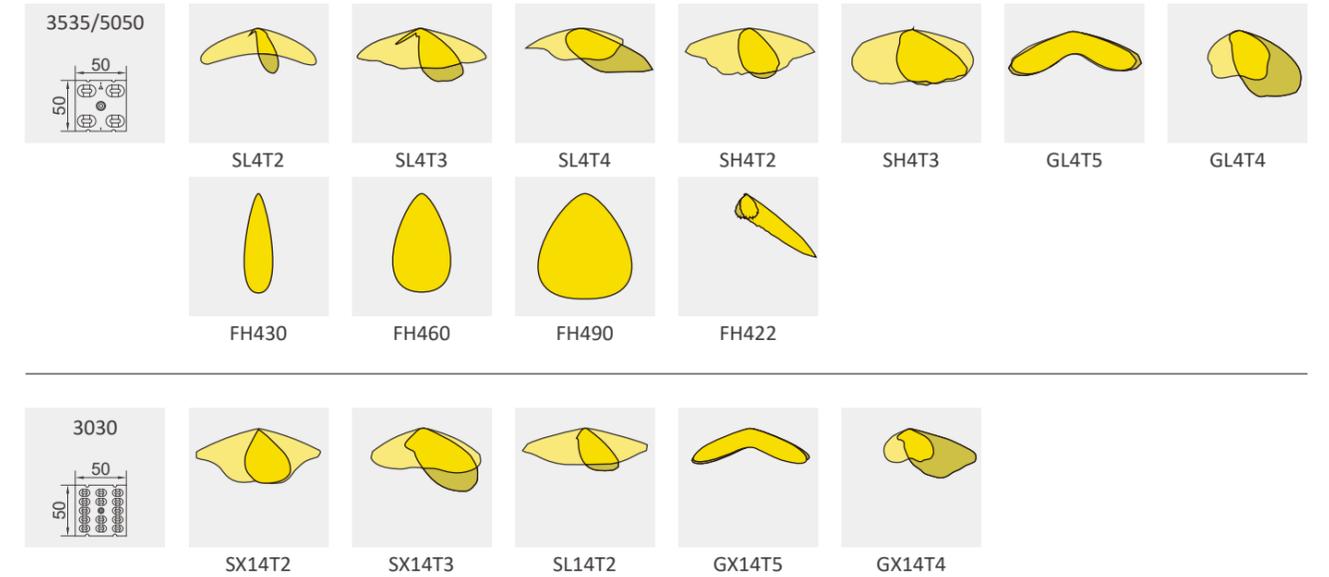
Technical information

Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70, Ta 25 C	Driver isolation	Class I or Class II
Wattags	40~150W	Control dimming	DALI / 1-10V / Timing / PWM
Light efficacy	Up to 136lm/W	Operating temperature	-35°C~50°C / 10% ~ 95% (humidity)
CRI	≥ 70 or ≥ 80	Body parts material	Die cast Aluminum
Color temperature	3000K, 4000K, Amber color	Optic	PC (standard) / PMMA (option)
Operation voltage	AC 90-305V or AC 220-240V	Screen	Flat tempered glass 5mm thickness
Frequency	50 / 60Hz	Gasket	Silicone
Power factor	≥0.95 cos	Color stability	3 or 5 MacAdam steps

Details



Optics available



Order code	Chip	LED QTY	Lens Type	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-90401	5050	16	4	40	5440	136
TL-90402	5050	32	4	60	8040	134
TL-90403	5050	48	4	100	13500	135
TL-90404	5050	64	4	150	19650	131
TL-90405	3030	56	14	40	5160	129
TL-90406	3030	112	14	60	7620	127
TL-90407	3030	168	14	100	12800	128
TL-90408	3030	224	14	150	19350	129

* 5050: LUMILEDS 5050; 3535: CREE XPG3; 3030: LUMILEDS 3030

Lm: This data is tested under normal working condition, the actual data will depends on environment condition, optics/diffuser and CCT.

TL-LRE-LED05



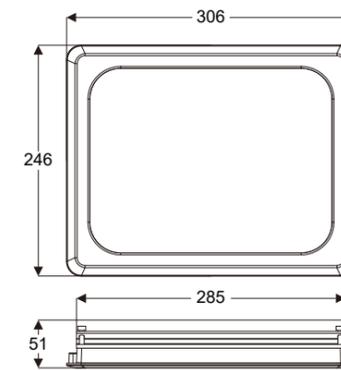
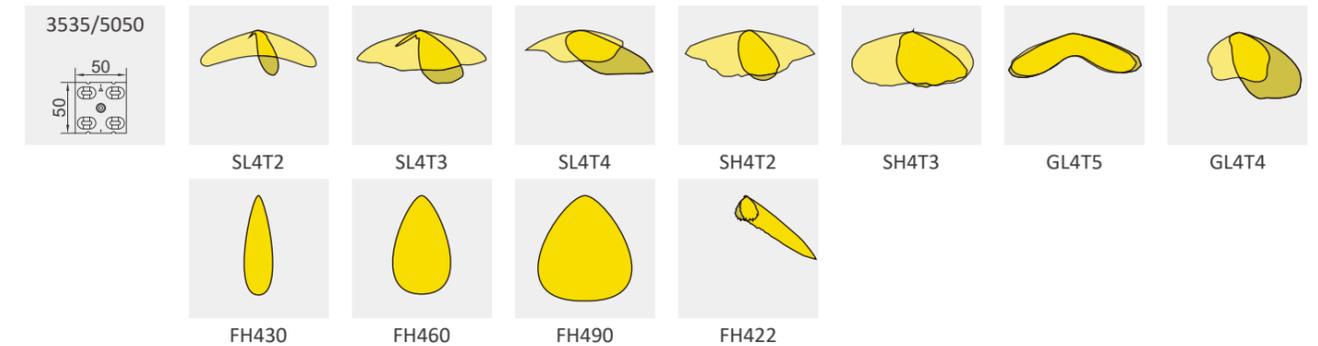
Technical information

Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70,Ta 25 C	Driver isolation	Class I
Wattags	60~150W	Control dimming	1-10V / PWM
Light efficacy	Up to 150lm/W	Operating temperature	-35°C~50°C / 10% ~ 95% (humidity)
CRI	≥ 70 or ≥ 80	Body parts material	Die cast Aluminum
Color temperature	3000K, 4000K, Amber color	Optic	PC (standard) / PMMA (option)
Operation voltage	AC 90-305V or AC 220-240V	Screen	Flat tempered glass 5mm thickness
Frequency	50 / 60Hz	Gasket	Silicone
Power factor	≥0.95 cos	Color stability	3 or 5 MacAdam steps

Details



Optics available



TL-LRE-LED05

Order code	Chip	LED QTY	Lens Type	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-90501	5050	36	4	60	9000	150
TL-90502	5050	36	4	70	10500	150
TL-90503	5050	36	4	80	12000	150
TL-90504	5050	48	4	90	13500	150
TL-90505	5050	48	4	100	15000	150
TL-90506	5050	48	4	110	16500	150
TL-90507	5050	48	4	120	18000	150
TL-90508	5050	72	4	130	19500	150
TL-90509	5050	72	4	140	21000	150
TL-90510	5050	72	4	150	22500	150

* 5050: LUMILEDS 5050; 3535: CREE XPG3; 3030: LUMILEDS 3030

Lm: This data is tested under normal working condition, the actual data will depends on environment condition, optics/diffuser and CCT.

TWO SIZE

TL-LRE-LED03S

S



TL-LRE-LED03M

M



IP66

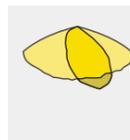
Technical information

Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70,Ta 25 C	Driver isolation	Class I or Class II
Wattags	100W	Control dimming	DALI / 1-10V / Timing / PWM
Light efficacy	Up to 120lm/W	Operating temperature	-35°C~50°C / 10% ~ 95% (humidity)
CRI	≥ 70 or ≥ 80	Body parts material	Die cast Aluminum
Color temperature	3000K, 4000K, Amber color	Optic	PC (standard) / PMMA (option)
Operation voltage	AC 90-305V or AC 220-240V	Screen	Flat tempered glass 5mm thickness
Frequency	50 / 60Hz	Gasket	Silicone
Power factor	≥0.95 cos	Color stability	3 or 5 MacAdam steps

Optics available

3030

64*1

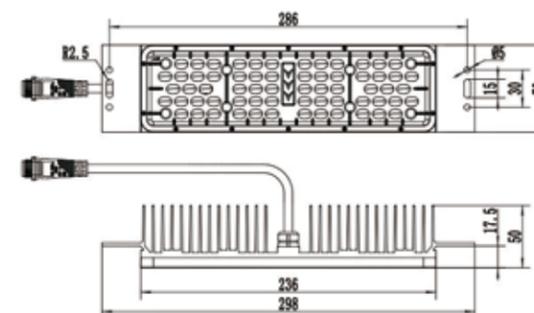


S37D64-T2



S38D64-T3

Order code	Chip	LED QTY	Lens Type	Power (W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)
TL-90301	3030	28	28	50	6000	120
TL-90302	3030	28	64	50	6000	120



* 5050: LUMILEDS 5050; 3535: CREE XPG3; 3030: LUMILEDS 3030

Lm: This data is tested under normal working condition, the actual data will depends on environment condition, optics/diffuser and CCT.

MODULES 5050

These modules were designed for built-in into luminaire casings. They enable a modular luminaire design. The modules are available in four shapes (4, 8, 12 or 16 LEDs) and in up to 3 white colour tones.



Optical Characteristics

Code	Model	CCT(K)	Luminous flux(lm) and typical efficiency (lm/W)									CRI
			350mA			700mA			1050mA			
			min.(lm)	typ.(lm)	typ.(lm/W)	min.(lm)	typ.(lm)	typ.(lm/W)	min.(lm)	typ.(lm)	typ.(lm/W)	
504730	TL-50-4X1-4-2S2P	3000	625	670	176	1200	1285	162	1710	1830	148	≥70
504740	TL-50-4X1-4-2S2P	4000	670	705	184	1285	1350	170	1830	1920	155	≥70
508730	TL-50-4X2-8-4S2P	3000	1255	1340	176	2405	2570	162	3425	3660	148	≥70
508740	TL-50-4X2-8-4S2P	4000	1340	1405	184	2570	2695	170	3660	3840	155	≥70
5012730	TL-50-4X3-12-6S2P	3000	1880	2010	176	3605	3855	162	5135	5490	148	≥70
5012740	TL-50-4X3-12-6S2P	4000	2010	2110	184	3855	4045	170	5490	5755	155	≥70
5016730	TL-50-4X4-16-8S2P	3000	2505	2680	176	4810	5140	162	6850	7320	148	≥70
5016740	TL-50-4X4-16-8S2P	4000	2680	2810	184	5140	5390	170	7320	7675	155	≥70

Operating Life

Lumen degradation	Operating life in hours at stated tc point temperature								
	If ≤ 350 mA			If 700mA			If 1050mA		
	40 °C	60 °C	85 °C	40 °C	60 °C	85 °C	40 °C	60 °C	85 °C
L80/B10	> 54,000	> 54,000	> 54,000	> 54,000	> 54,000	> 54,000	> 54,000	> 54,000	> 54,000
L70/B10	> 54,000	> 54,000	> 54,000	> 54,000	> 54,000	> 54,000	> 54,000	> 54,000	> 54,000

MODULES 3535



Optical Characteristics

Code	Model	CCT(K)	Luminous flux(lm) and typical efficiency (lm/W)									CRI
			350mA			700mA			1050mA			
			min.(lm)	typ.(lm)	typ.(lm/W)	min.(lm)	typ.(lm)	typ.(lm/W)	min.(lm)	typ.(lm)	typ.(lm/W)	
354730	TL-35-4X1-4-4S1P	3000	590	625	162	1115	1180	147	1535	1625	132	≥70
354740	TL-35-4X1-4-4S1P	4000	630	660	171	1185	1240	155	1635	1705	139	≥70
358730	TL-35-4X2-8-8S1P	3000	1185	1255	163	2225	2360	147	3065	3250	132	≥70
358740	TL-35-4X2-8-8S1P	4000	1265	1320	171	2375	2480	155	3270	3415	139	≥70
3512730	TL-35-4X3-12-12S1P	3000	1775	1880	162	3340	3540	147	4600	4875	132	≥70
3512740	TL-35-4X3-12-12S1P	4000	1895	1975	171	3560	3715	154	4910	5125	139	≥70
3516730	TL-35-4X4-16-16S1P	3000	2370	2510	163	4450	4720	147	6135	6505	132	≥70
3516740	TL-35-4X4-16-16S1P	4000	2525	2635	171	4750	4955	155	6545	6830	139	≥70

Operating Life

Lumen degradation	Operating life in hours at stated tc point temperature								
	If 350 mA			If 700mA			If 1050mA		
	40 °C	60 °C	85 °C	40 °C	60 °C	85 °C	40 °C	60 °C	80 °C
L80/B10	> 108,000	> 108,000	> 108,000	> 108,000	> 108,000	> 108,000	> 108,000	> 108,000	> 108,000
L70/B10	> 108,000	> 108,000	> 108,000	> 108,000	> 108,000	> 108,000	> 108,000	> 108,000	> 108,000

TL-230V-10KA-A SERIES

TL-230V-10kA-AS1



TL-230V-10kA-AS2

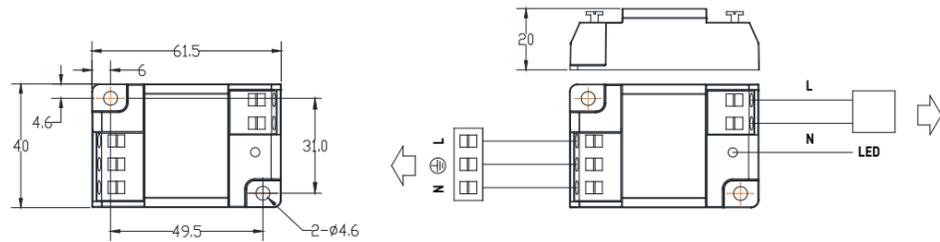


Performance Specification

Part Number	Nominal voltage	Max. Continuous voltage	Nominal discharge current (8/20 s)	Max. discharge current (8/20 s)	Nominal discharge voltage	Voltage protection level	Response time	Cross-section area	Weight	protective earth
	U0(VAC)	Uc(VAC)	In(kA)	I _{max} (kA)	Uoc(kV)	Up(kV)	tA(ns)	mm ²	g	
TL-230V-10kA-AS1	100~277	320	5	10	10	1.5	25	0.5-2.5	33	Class I
TL-230V-10kA-AS2	100~277	320	5	10	10	1.5	25	0.5-2.5	32	Class II

Packing Information

Model	Inner Carton Size L*W*H	QTY / Inner Carton	Outer Carton Size L*W*H	QTY / Outer Carton	N.W.(kg)	G.W.(kg)
TL-230V-10kA-AS1	135*215*60mm	20	420*440*140mm	12	8.00	10.20
TL-230V-10kA-AS2	135*215*60mm	20	420*440*140mm	12	8.00	10.20



TL-230V-10KA-B SERIES

TL-230V-10kA-BS1/2



TL-230V-10kA-BP1/2

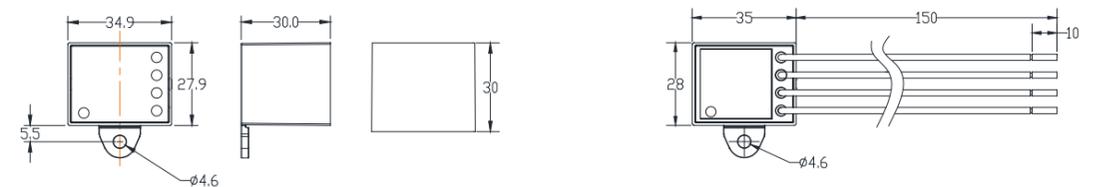


Performance Specification

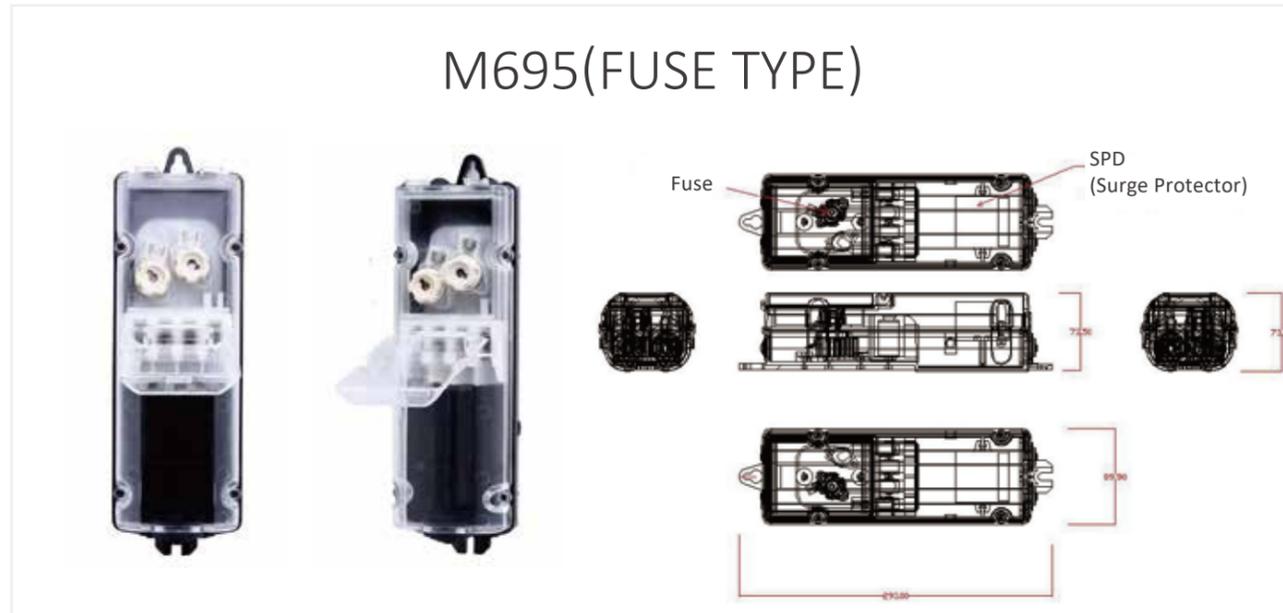
Part Number	Nominal voltage	Max. Continuous voltage	Nominal discharge current (8/20 s)	Max. discharge current (8/20 s)	Nominal discharge voltage	Voltage protection level	Response time	Cross-section area	Weight	protective earth
	U0(VAC)	Uc(VAC)	In(kA)	I _{max} (kA)	Uoc(kV)	Up(kV)	tA(ns)	mm ²	g	
TL-230V-10kA-BP1	100~277	320	5	10	10	1.1	25	16AWG	55	Class I
TL-230V-10kA-BP2	100~277	320	5	10	10	1.1	25	16AWG	53	Class II
TL-230V-10kA-BS1	100~277	320	5	10	10	1.5	25	16AWG	57	Class I
TL-230V-10kA-BS2	100~277	320	5	10	10	1.5	25	16AWG	55	Class II

Packing Information

Model	Inner Carton Size L*W*H	QTY / Inner Carton	Outer Carton Size L*W*H	QTY / Outer Carton	N.W.(kg)	G.W.(kg)
TL-230V-10kA-BP1	195*170*70mm	40	405*180*160mm	4	8.80	10.20
TL-230V-10kA-BP2	195*170*70mm	40	405*180*160mm	4	8.80	10.20
TL-230V-10kA-BS1	195*170*70mm	40	405*180*160mm	4	8.80	10.20
TL-230V-10kA-BS2	195*170*70mm	40	405*180*160mm	4	8.80	10.20



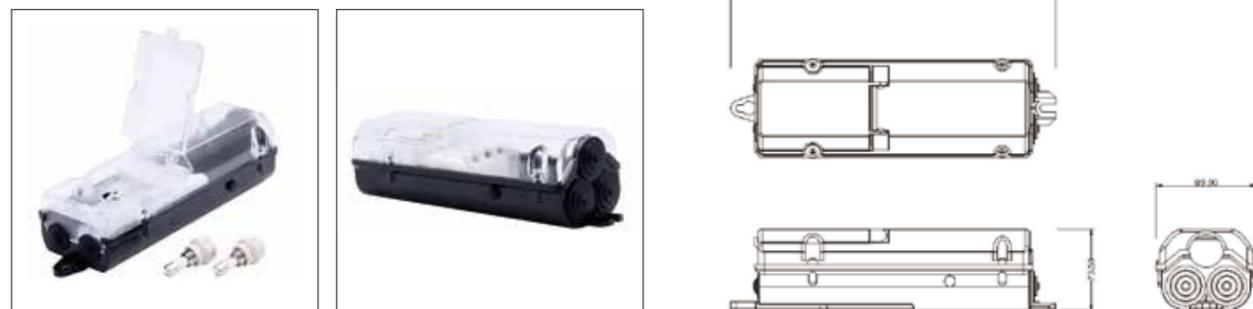
WIRING BOX



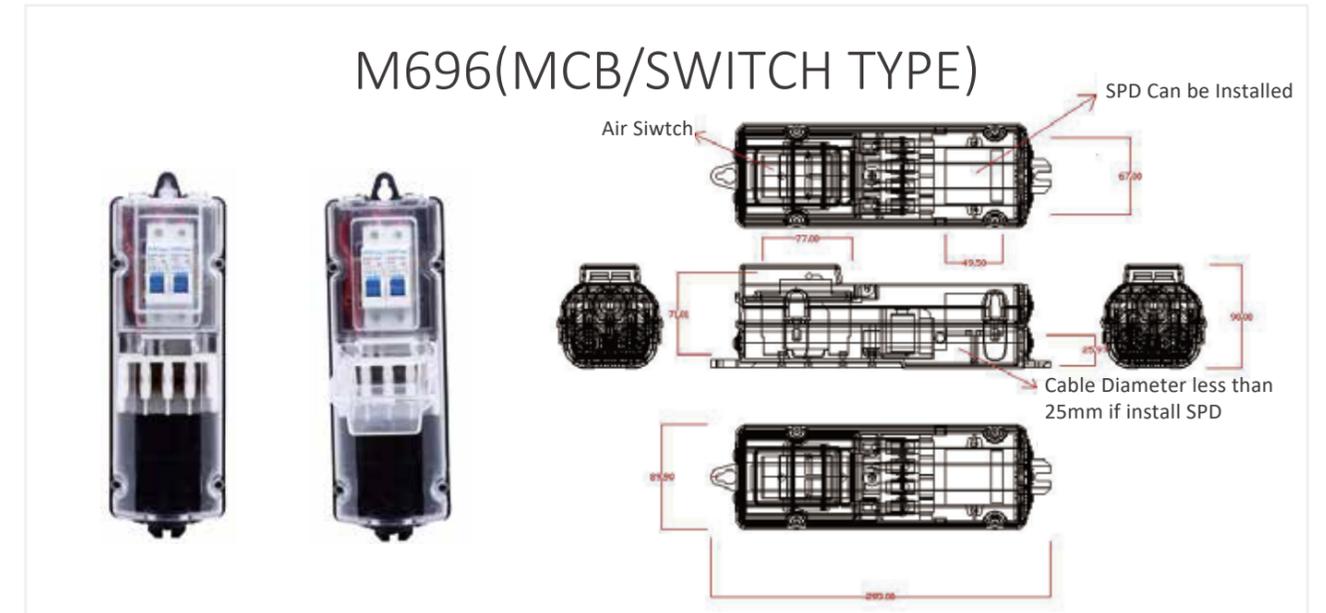
Technical information

Parameter	Technical data	Parameter	Technical data
Color	Black box with transparent cover	Connect method	M3 screws and
Ampere	Input 80A, Output 16A	Box fixing method	Fixing lugs
Voltage	Input 500VAC, Output 450VAC	Housing material	PC V2 Fire Retardant
Cross section	4 ~ 35mm ²	IP code	IP54
Conductor fixing material	PA66	Working temperature	T110
Conductor material	H62 copper x4	Certificate	CE

Details



WIRING BOX



Technical information

Parameter	Technical data	Parameter	Technical data
Color	Black box with transparent cover	Connect method	M3 screws and
Ampere	Input 80A, Output 16A	Box fixing method	Fixing lugs
Voltage	Input 500VAC, Output 450VAC	Housing material	PC V2 Fire Retardant
Cross section	4 ~ 35mm ²	IP code	IP54
Conductor fixing material	PA66	Working temperature	T110
Conductor material	H62 copper x4	Certificate	CE

Details



ADDITIONAL ACCESSORIES

Shorting Cap

Standard: ANSI C136.10 & UL773

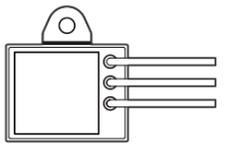
Code.20001001



10KV Parallel Surge Protection device

Class I , Uoc = 10 kV , In = 5 kA , I_{max} = 10 kA
Voltage Protection level up (L-N) ≤ 1.5 kV
Voltage Protection level up (L/N-PE) ≤ 1.5 kV
Class II , Uoc = 10 kV , In = 5 kA , I_{max} = 10 kA
Voltage Protection level up (L-N) ≤ 1.5 kV

Code.20007001



Photocell

Standard: ANSI C136.10 & UL773

Code.20002001



10KV Series Surge Protection device

Class I , Uoc = 10 kV , In = 5 kA , I_{max} = 10 kA
Voltage Protection level up (L-N) ≤ 1.5 kV
Voltage Protection level up (L/N-PE) ≤ 1.5 kV
Class II , Uoc = 10 kV , In = 5 kA , I_{max} = 10 kA
Voltage Protection level up (L-N) ≤ 1.5 kV

Code.20007002

Code.20007011



5PIN / 7PIN Nema Socket

Standard: ANSI C136.10 & UL773

Code.20003001

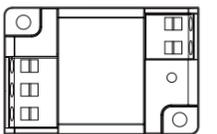


15KV Series Surge Protection device

Class I , Uoc = 15 kV , In = 7.5 kA , I_{max} = 15 kA
Voltage Protection level up (L-N) ≤ 1.8 kV
Voltage Protection level up (L/N-PE) ≤ 1.8 kV
Class II , Uoc = 15 kV , In = 7.5 kA , I_{max} = 15 kA
Voltage Protection level up (L-N) ≤ 1.8 kV

Code.20007012

Code.20007013



Zhaga socket

Standard: Zhagabook 18

Code.20004001

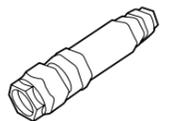


Connector

IP68 connector

Code.20007014

Code.20008001



Zhaga cup

Standard: Zhagabook 18

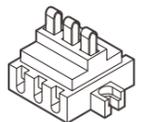
Code.20004002



3 pin Power-off Protecto

L N PE for Calss I

Code.20009001



Zhaga base

220V input

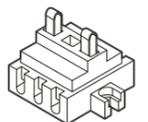
Code.20004003



2 Pin Power-off Protector

L N for Calss II

Code.20009002



Zhaga base Motion Sensor

Motion sensor / Daylight Sensor

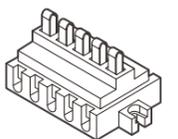
Code.20005001



5 pin Power-off Protector

L N PE Dim+ Dim -

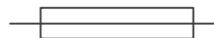
Code.20009003



Fuse wire

5x20mm , Glass , 250V 6A

Code.20006001



PIR for Bollard

Infrared Motion Sensor

Code.20013001



PIR Sensor for Street light

Infrared Motion Sensor

Code.20007001



Light bar for Bollard

Color:RGBW

Code.20014001

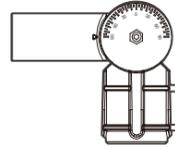


ADDITIONAL ACCESSORIES

Adjustable adapter

Spigot size
60 to 50 mm
60 to 60 mm
76 to 60 mm

Code.20010001



Pre-installed cable sets

5 G 1.5mm²
D-,D+,PE,N,L
Class I
Dim

Code.20011001



Fixed steel adapter

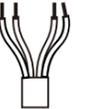
Spigot size 60 to 60 mm

Code.20010002



4 x 2.5mm²
4 x 1.5mm²
D-,D+,N,L
Class II
Dim

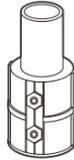
Code.20011002



Steel adapter

Spigot size 76 to 60 mm

Code.20010003



4 G 2.5mm²
4 G 1.5mm²
L,Lp,PE,N
Class I
Bi-Power Switching line

Code.20011003



Adapter

Spigot size 60 to 50 mm

Code.20010004



3 x 2.5mm²
3 x 1.5mm²
L,Lp,N
Class II
Bi-Power Switching line

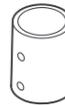
Code.20011004



Adapter

Spigot size 60 to 48 mm

Code.20010005



3 G 2.5mm²
3 G 1.5mm²
L,PE,N
Class I
No Dim

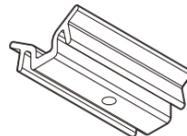
Code.20011005



Adapter

Spigot size 60 to 48 mm

Code.20010006



2 x 2.5mm²
2 x 1.5mm²
L,N
Class II
No Dim

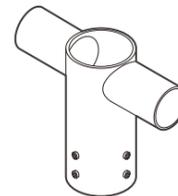
Code.20011006



2 lights adaptor for dia

60 mm pole
76 mm pole

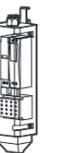
Code.20010007



Protection sequence

Installation at the base of the pole
IP44 & IK08

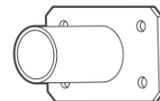
Code.20012001



Wall mounting bracket

Spigot size 40 to 60 mm

Code.20010008



Protection sequence

Installation at the base of the pole
IP44 & IK08

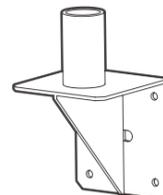
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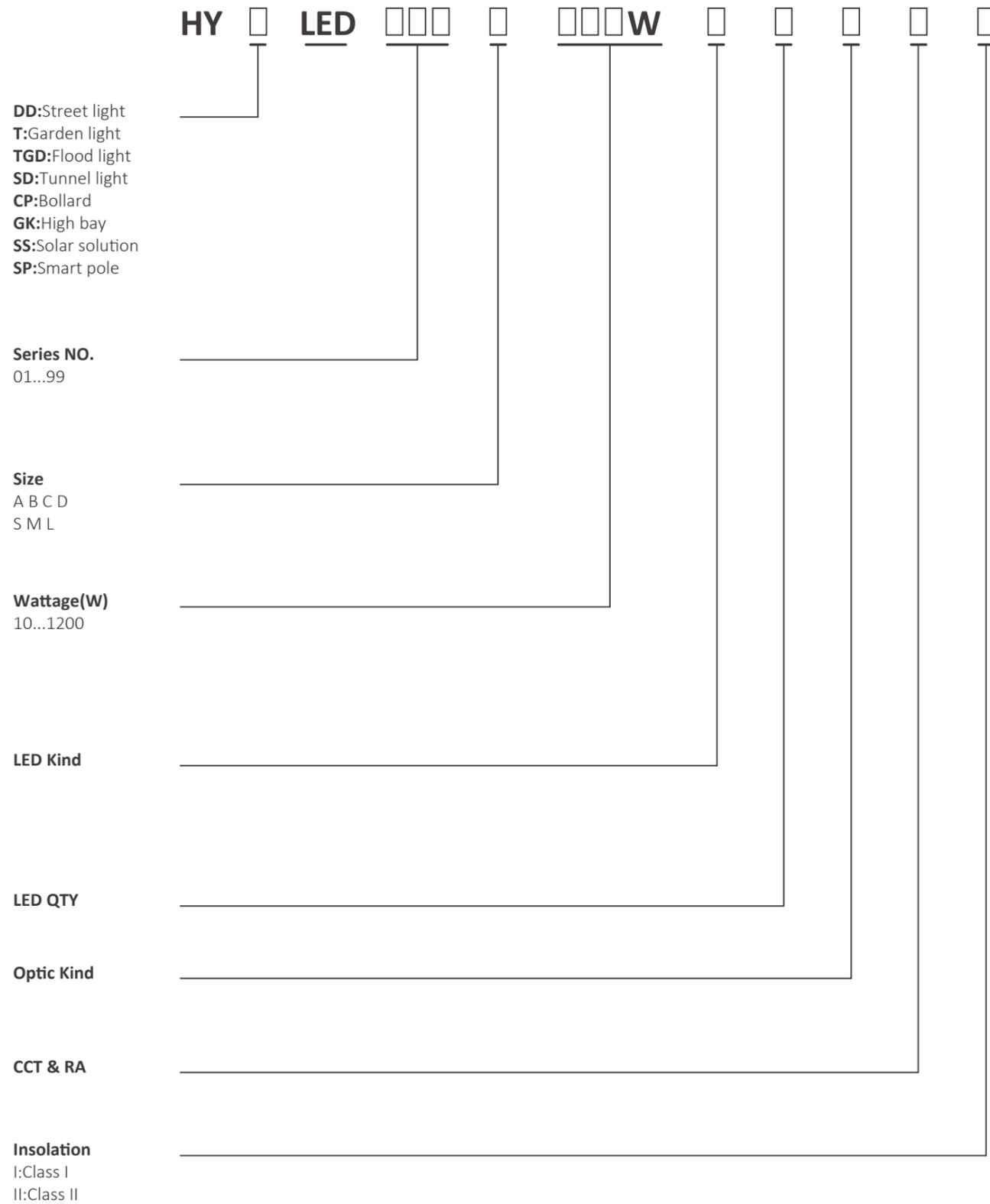
Wall mounting bracket

Vertical

Code.20010009

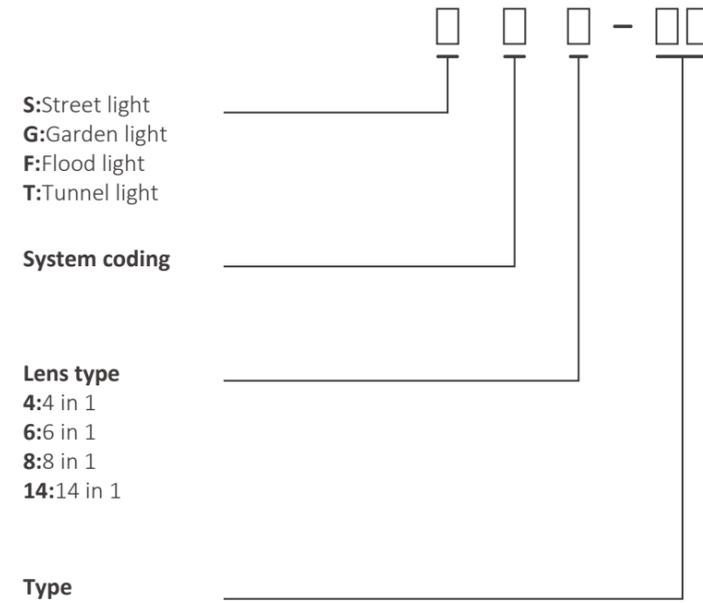


LAMP NOMENCLATURE



OTHER NOMENCLATURE

Lens nomenclature



PCB Nomenclature

