


















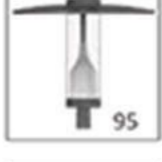































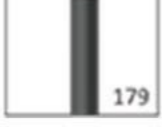



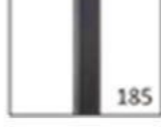
























Street & Urban Light



CONTENT

About us							
Street light							
							
Garden light							
							
							
							
							
							
Flood light							
Bollard light							

High bay						
Tunnel light						
Solar light						
Light pole						
LED Engine						
LED Modules						
Additional accessories						
Nomenclature						

LUMINARIE WORKSHOP

Hi-tech automated SMT machines for better lighting.

For luminaire division, there are die-casting, fashioning, powder coating, SMT and assembling workshop.

Ten die-casting machines from 250T to 1250T, all die-casting parts can be precision-machined by 30 sets CNC machines. Auto powder coating after microwave flush, auto SMT machines work in dust free and static environment. Four assembling lines to make sure high production.



ABOUT CERTIFICATE

	European Certification of Conformity for performance requirement
	European Certification of Conformity
	Compliance
	Compliance of IEC standard
	Standards Australia International Limited
	China Quality Certification Center
	American standard for Electromagnetic Compatibility
	American standard for Electromagnetic Compatibility
	American standard for Electrical Products
	American standard for performance testing
	Absence of dangerous substances in electrical and electronic equipments
	Fixture in class I
	Fixture in class II
	Group of Photobiological risk
	UV-stabilized painting
	Watertight to the insight of dust and protected against splashing water
	Watertight to the insight of dust and protected against water jets
	Watertight to the insight of dust and protected against temporary immersion

	Protected against mechanical impacts equal to 5 Joule
	Protected against mechanical impacts equal to 10 Joule
	Protected against mechanical impacts equal to 20 Joule
	Photometric Testing
	Temperature testing for luminaire system
	Lifespan calculation
	Temperature testing
	Waste Electrical and Electronics Equipment Directive
	Registration, Evaluation and Authorisation of Chemicals
	Electromagnetic Compatibility
	Fragile
	Pole design and manufacturer standard for EU market
	Galvanization standard
	Material standard for poles
	Welding standard for EU
	Galvanization standard for USA
	Welding standard for USA

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.



ANY OTHER RAL COL .OR UPON REQUEST

Powder supply by



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

FOUR SIZE

40W~60W
CxS:0.11m²
ø76mm / ø60mm

60W~150W
CxS:0.143m²
ø76mm / ø60mm

120W~200W
CxS:0.239m²
ø76mm / ø60mm

200W~320W
CxS:0.332m²
ø76mm / ø60mm

XS

S

M

L

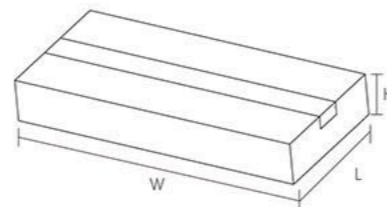


Technical information

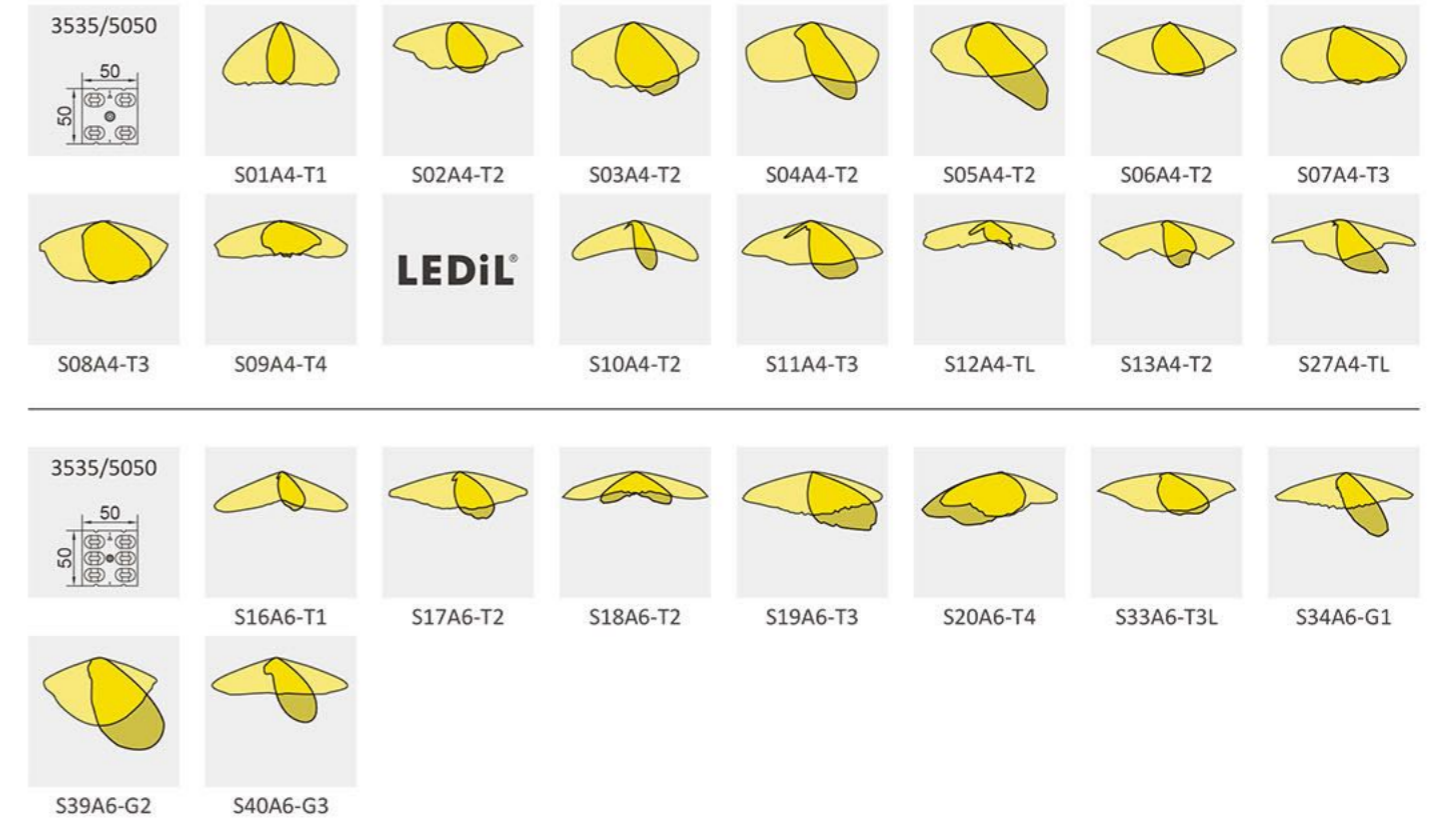
Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70, Ta 25 °C	Driver isolation	Class I or Class II
Wattags	10~350W	Control dimming	DALI / 1-10V / Timing / PWM
Light efficacy	Up to 161lm/W	Operating temperature	-35°C~50°C / 10% ~ 95% (humidity)
CRI	≥ 70 or ≥ 80	Body parts 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-LED15C	635*320*140mm	1	5.65	6.2
S TL-LED15B	740*360*150mm	1	7.25	8.5
M TL-LED15A	930*445*155mm	1	11.85	13.85
L TL-LED15	1080*505*170mm	1	17.6	20.1



Optics available



Details

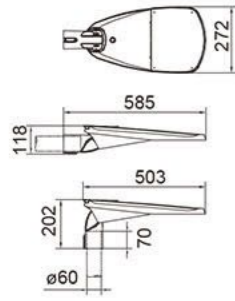


Smooth back

L with fins

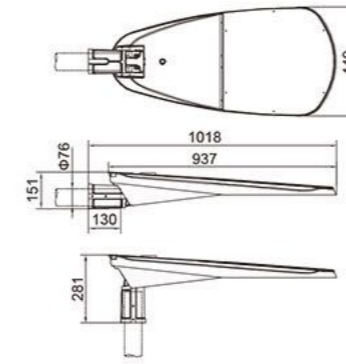
Sky eye





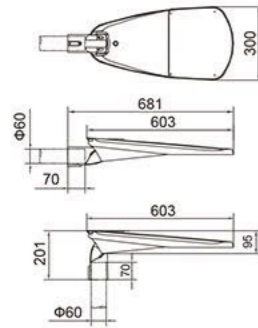
TL-LED15C

Order code	Chip	LED QTY	Lens Type	Power	Luminaire efficacy Up to(lm/W)	Lifespan L70/B10
115101	5050	12	4	40W	147	> 54,000hrs
115102	5050	24	4	60W	156	> 54,000hrs
115103	3535	12	4	40W	110	> 108,000hrs
115104	3535	24	4	60W	119	> 108,000hrs
115105	5050	18	6	40W	130	> 54,000hrs
115106	5050	36	6	60W	136	> 54,000hrs
115107	3535	18	6	40W	121	> 108,000hrs
115108	3535	36	6	60W	128	> 108,000hrs



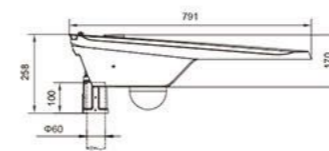
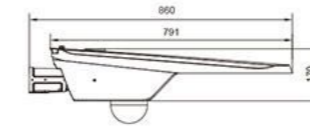
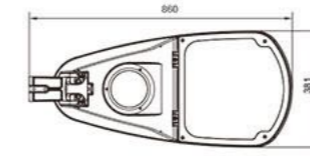
TL-LED15

Order code	Chip	LED QTY	Lens Type	Power	Luminaire efficacy Up to(lm/W)	Lifespan L70/B10
115401	5050	100	4	200W	161	> 54,000hrs
115402	5050	120	4	240W	161	> 54,000hrs
115403	5050	140	4	320W	158	> 54,000hrs
115404	3535	100	4	200W	124	> 108,000hrs
115405	3535	120	4	240W	124	> 108,000hrs
115406	3535	140	4	320W	122	> 108,000hrs
115407	5050	150	6	200W	131	> 54,000hrs
115408	5050	180	6	240W	131	> 54,000hrs
115409	5050	210	6	320W	126	> 54,000hrs
115410	3535	150	6	200W	132	> 108,000hrs
115411	3535	180	6	240W	132	> 108,000hrs
115412	3535	210	6	320W	129	> 108,000hrs



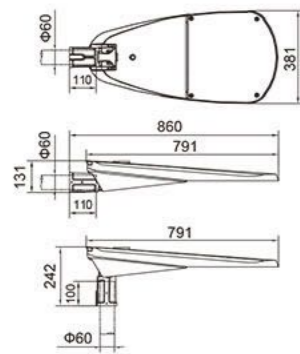
TL-LED15B

Order code	Chip	LED QTY	Lens Type	Power	Luminaire efficacy Up to(lm/W)	Lifespan L70/B10
115201	5050	24	4	60W	156	> 54,000hrs
115202	5050	36	4	80W	159	> 54,000hrs
115203	3535	24	4	60W	119	> 108,000hrs
115204	3535	36	4	80W	123	> 108,000hrs
115205	5050	36	6	80W	125	> 54,000hrs
115206	5050	54	6	120W	125	> 54,000hrs
115207	5050	54	6	150W	120	> 54,000hrs
115208	3535	36	6	80W	121	> 108,000hrs
115209	3535	54	6	120W	121	> 108,000hrs
115210	3535	54	6	150W	127	> 108,000hrs



TL-LED15 Sky Eye

Order code	Chip	LED QTY	Lens Type	Power	Luminaire efficacy Up to(lm/W)	Lifespan L70/B10
115501	5050	36	4	80W	159	> 54,000hrs
115502	5050	48	4	120W	156	> 54,000hrs
115503	5050	64	4	150W	158	> 54,000hrs
115504	3535	36	4	80W	121	> 108,000hrs
115505	3535	48	4	120W	119	> 108,000hrs
115506	3535	64	4	150W	121	> 108,000hrs
115507	5050	54	6	80W	126	> 54,000hrs
115508	5050	72	6	150W	124	> 54,000hrs
115509	5050	96	6	200W	124	> 54,000hrs
115510	3535	54	6	80W	130	> 108,000hrs
115511	3535	72	6	150W	123	> 108,000hrs
115512	3535	96	6	200W	122	> 108,000hrs

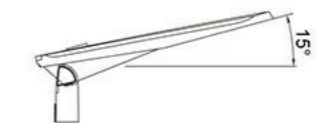
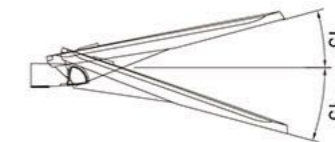


TL-LED15A

Order code	Chip	LED QTY	Lens Type	Power	Luminaire efficacy Up to(lm/W)	Lifespan L70/B10
115301	5050	48	4	120W	156	> 54,000hrs
115302	5050	64	4	150W	158	> 54,000hrs
115303	5050	64	4	180W	153	> 54,000hrs
115304	3535	48	4	120W	119	> 108,000hrs
115305	3535	64	4	150W	121	> 108,000hrs
115306	3535	64	4	180W	116	> 108,000hrs
115307	5050	72	6	150W	124	> 54,000hrs
115308	5050	96	6	200W	124	> 54,000hrs
115309	3535	72	6	150W	123	> 108,000hrs
115310	3535	96	6	200W	123	> 108,000hrs



TL-LED15B/15C



TL-LED15A/15

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

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

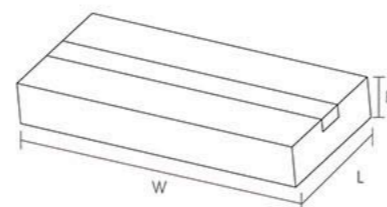


Technical information

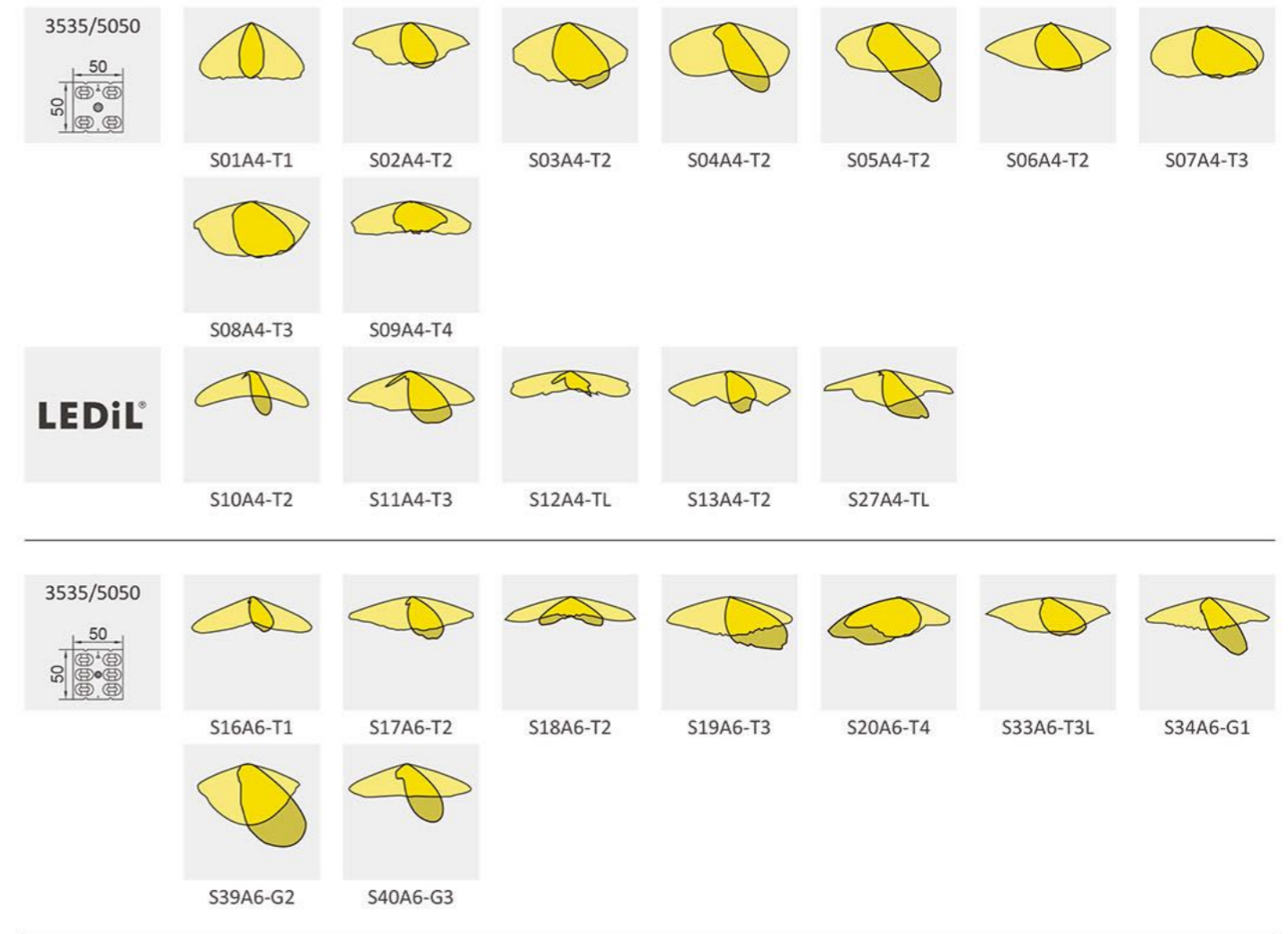
Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70,Ta 25°C	Driver isolation	Class I or Class II
Wattags	30~240W	Control dimming	DALI / 1-10V / Timing / PWM
Light efficacy	Up to 151lm/W	Operating temperature	-35°C~50°C / 10% ~ 95% (humidity)
CRI	≥ 70 or ≥ 80	Body parts material	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

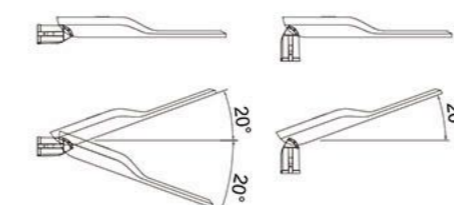
Model	Carton Size(L*W*H)	QTY/Carton	N.W.(kg)	G.W.(kg)
S TL-LED3I-S	675*305*160mm	1	6.65	7.30
M TL-LED3I-M	730*320*140mm	1	8.54	8.75
L TL-LED3I-L	865*380*150mm	1	9.60	10.95

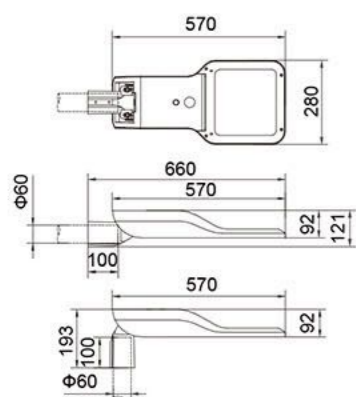


Optics available



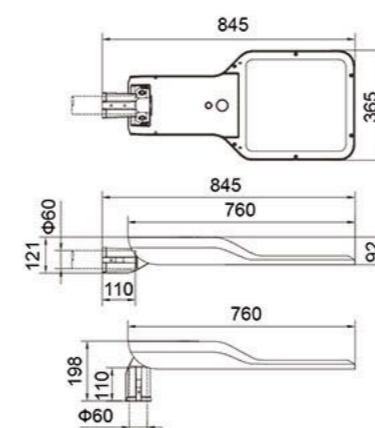
Details





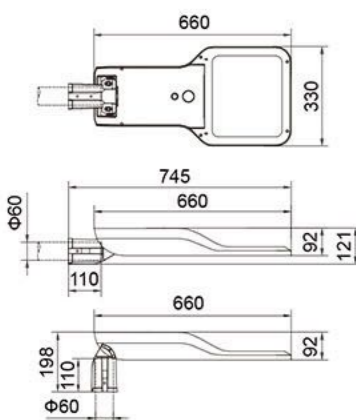
TL-LED31-S

Order code	Chip	LED QTY	Lens Type	Power	Luminaire efficacy Up to(lm/W)	Lifespan L70/B10
131101	5050	12	4	40W	146	> 54,000hrs
131102	5050	24	4	60W	146	> 54,000hrs
131103	5050	36	4	80W	150	> 54,000hrs
131104	3535	12	4	40W	129	> 108,000hrs
131105	3535	24	4	60W	129	> 108,000hrs
131106	3535	36	4	80W	131	> 108,000hrs
131107	5050	24	6	40W	136	> 54,000hrs
131108	5050	36	6	60W	136	> 54,000hrs
131109	5050	54	6	80W	138	> 54,000hrs
131110	3535	24	6	40W	128	> 108,000hrs
131111	3535	36	6	60W	128	> 108,000hrs
131112	3535	54	6	80W	130	> 108,000hrs



TL-LED31-L

Order code	Chip	LED QTY	Lens Type	Power	Luminaire efficacy Up to(lm/W)	Lifespan L70/B10
131301	5050	80	4	180W	150	> 54,000hrs
131302	5050	100	4	200W	152	> 54,000hrs
131303	5050	120	4	250W	151	> 54,000hrs
131304	3535	80	4	180W	131	> 108,000hrs
131305	3535	100	4	200W	136	> 108,000hrs
131306	3535	120	4	250W	135	> 108,000hrs
131307	5050	120	6	180W	137	> 54,000hrs
131308	5050	150	6	200W	140	> 54,000hrs
131309	5050	180	6	250W	139	> 54,000hrs
131310	3535	120	6	180W	130	> 108,000hrs
131311	3535	150	6	200W	132	> 108,000hrs
131312	3535	180	6	250W	131	> 108,000hrs



TL-LED31-M

Order code	Chip	LED QTY	Lens Type	Power	Luminaire efficacy Up to(lm/W)	Lifespan L70/B10
131201	5050	48	4	100W	151	> 54,000hrs
131202	5050	64	4	120W	148	> 54,000hrs
131203	3535	48	4	100W	132	> 108,000hrs
131204	3535	64	4	120W	130	> 108,000hrs
131205	5050	72	6	100W	139	> 54,000hrs
131206	5050	96	6	150W	137	> 54,000hrs
131207	3535	72	6	100W	131	> 108,000hrs
131208	3535	96	6	150W	129	> 108,000hrs

* 5050: LUMILEDS 5050; 3535: CREE XPG3; 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

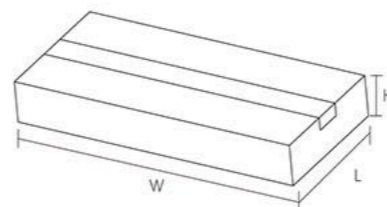


Technical information

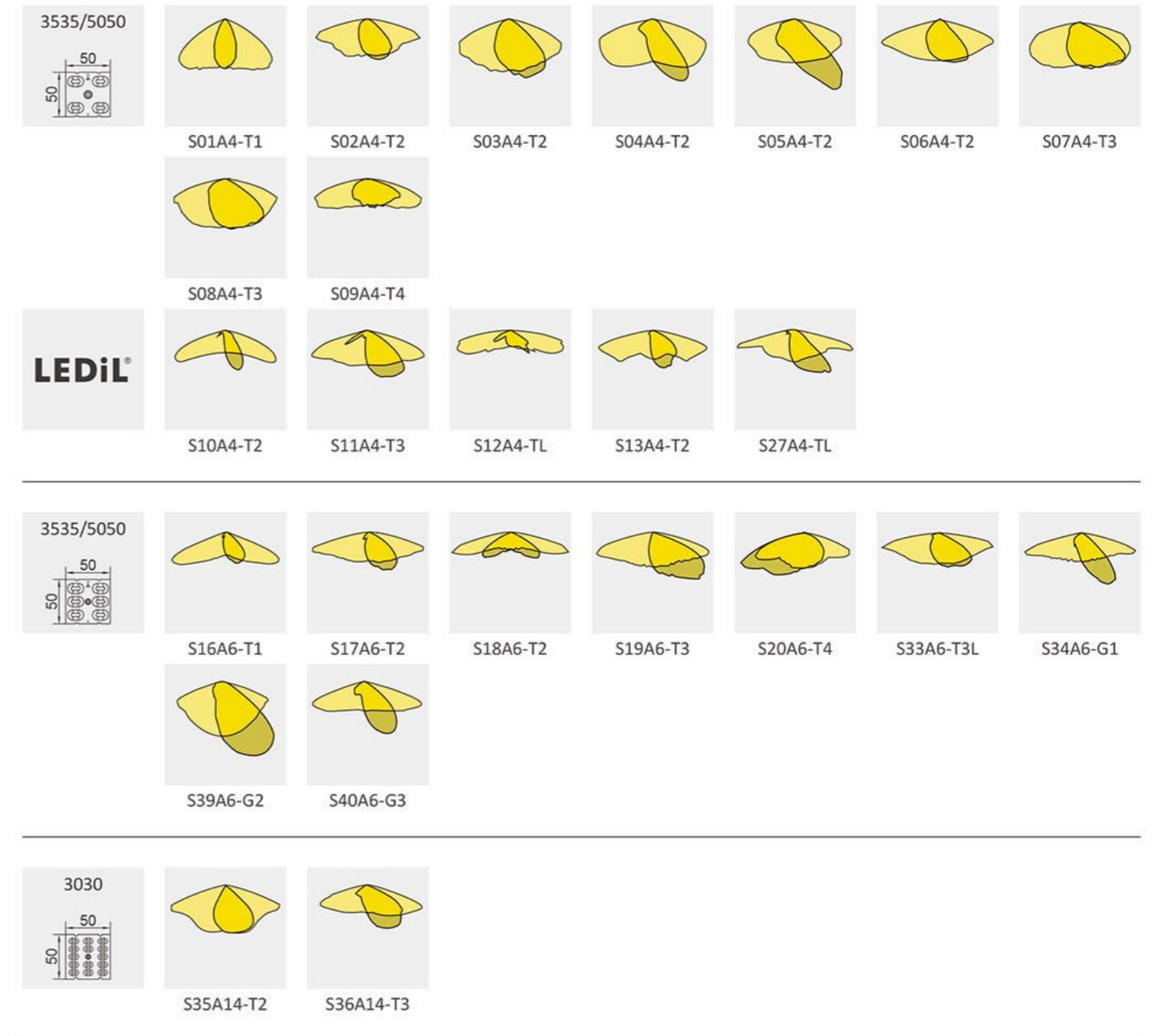
Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70, Ta 25°C	Driver isolation	Class I or Class II
Wattags	10~350W	Control dimming	DALI / 1-10V / Timing / PWM
Light efficacy	Up to 164lm/W	Operating temperature	-35°C~50°C / 10% ~ 95% (humidity)
CRI	≥ 70 or ≥ 80	Body parts material	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)
XXS TL-LED10D	520*245*140mm	1	3.60	3.88
XS TL-LED10B	605*315*140mm	1	4.65	5.55
S TL-LED10C	735*390*130mm	1	7.05	8.60
M TL-LED10A	830*435*145mm	1	9.65	11.50
L TL-LED10	1015*515*155mm	1	15.30	18.05



Optics available



TITAN

XXS



XS



S



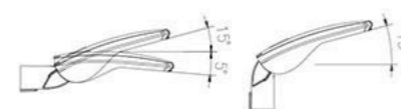
M



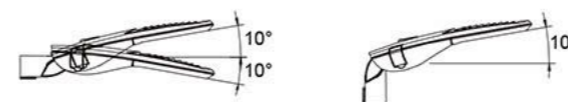
L



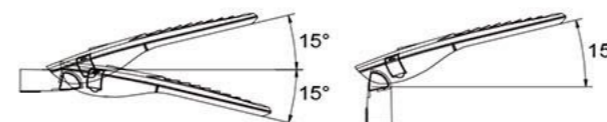
Details



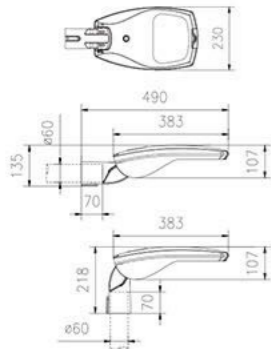
TL-LED10D



TL-LED10B

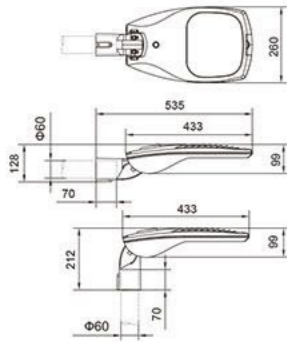


TL-LED10/10A/10C



TL-LED10D

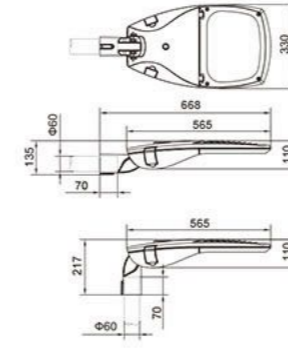
Order code	Chip	LED QTY	Lens Type	Power	Luminaire efficacy Up to(lm/W)	Lifespan L70/B10
110101	5050	8	4	20W	148	> 54,000hrs
110102	5050	16	4	40W	148	> 54,000hrs
110103	5050	24	4	60W	148	> 54,000hrs
110104	3535	8	4	20W	127	> 108,000hrs
110105	3535	16	4	40W	127	> 108,000hrs
110106	3535	24	4	60W	127	> 108,000hrs
110107	5050	12	6	20W	162	> 54,000hrs
110108	5050	24	6	40W	162	> 54,000hrs
110109	5050	36	6	60W	162	> 54,000hrs
110110	3535	12	6	20W	128	> 108,000hrs
110111	3535	24	6	40W	128	> 108,000hrs
110112	3535	36	6	60W	128	> 108,000hrs



TL-LED10B

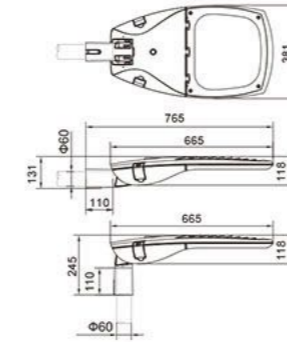
Order code	Chip	LED QTY	Lens Type	Power	Luminaire efficacy Up to(lm/W)	Lifespan L70/B10
110201	5050	12	4	40W	138	> 54,000hrs
110202	5050	24	4	60W	148	> 54,000hrs
110203	3535	12	4	40W	118	> 108,000hrs
110204	3535	24	4	60W	127	> 108,000hrs
110205	5050	12	6	40W	156	> 54,000hrs
110206	5050	36	6	60W	162	> 54,000hrs
110207	3535	18	6	40W	121	> 108,000hrs
110208	3535	36	6	60W	128	> 108,000hrs
110209	3030	42	14	40W	124	> 54,000hrs
110210	3030	84	14	60W	131	> 54,000hrs

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



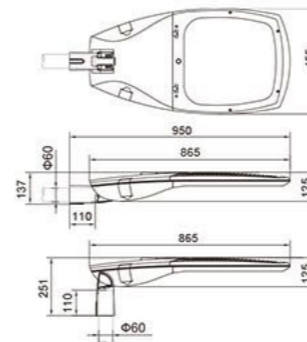
TL-LED10C

Order code	Chip	LED QTY	Lens Type	Power	Luminaire efficacy Up to(lm/W)	Lifespan L70/B10
110301	5050	36	4	80W	145	> 54,000hrs
110302	5050	48	4	120W	148	> 54,000hrs
110303	3535	36	4	80W	131	> 108,000hrs
110304	3535	48	4	120W	127	> 108,000hrs
110305	5050	54	6	80W	164	> 54,000hrs
110306	5050	72	6	120W	162	> 54,000hrs
110307	5050	72	6	150W	158	> 54,000hrs
110308	3535	54	6	80W	130	> 108,000hrs
110309	3535	72	6	120W	128	> 108,000hrs
110310	3535	72	6	150W	124	> 108,000hrs
110311	3030	126	14	80W	144	> 54,000hrs
110312	3030	168	14	120W	142	> 54,000hrs
110313	3030	168	14	150W	133	> 54,000hrs



TL-LED10A

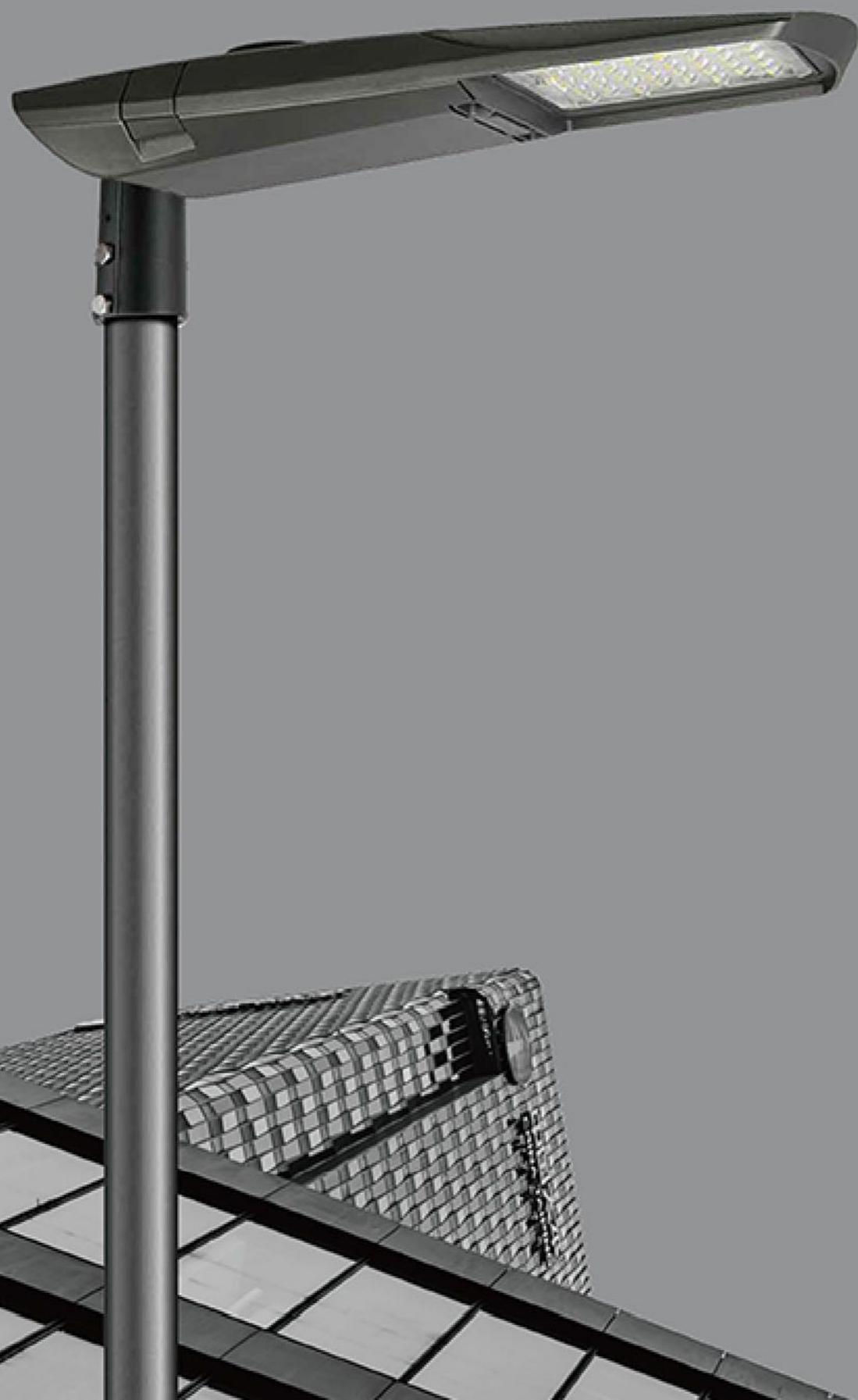
Order code	Chip	LED QTY	Lens Type	Power	Luminaire efficacy Up to(lm/W)	Lifespan L70/B10
110401	5050	48	4	120W	148	> 54,000hrs
110402	5050	64	4	150W	151	> 54,000hrs
110403	3535	48	4	150W	121	> 108,000hrs
110404	3535	64	4	200W	121	> 108,000hrs
110405	5050	72	6	150W	158	> 54,000hrs
110406	5050	96	6	200W	158	> 54,000hrs
110407	3030	168	14	150W	127	> 54,000hrs
110408	3030	224	14	200W	127	> 54,000hrs



TL-LED10

Order code	Chip	LED QTY	Lens Type	Power	Luminaire efficacy Up to(lm/W)	Lifespan L70/B10
110501	5050	80	4	180W	152	> 54,000hrs
110502	5050	96	4	200W	153	> 54,000hrs
110503	3535	80	4	180W	135	> 108,000hrs
110504	3535	96	4	200W	136	> 108,000hrs
110505	5050	120	6	240W	159	> 54,000hrs
110506	5050	144	6	300W	158	> 54,000hrs
110507	3535	120	6	240W	125	> 108,000hrs
110508	3535	144	6	300W	124	> 108,000hrs
110509	3030	280	14	240W	134	> 54,000hrs
110510	3030	336	14	300W	133	> 54,000hrs

LETO



LETO is a modern and economical model.

- 5 sizes for different wattage from 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

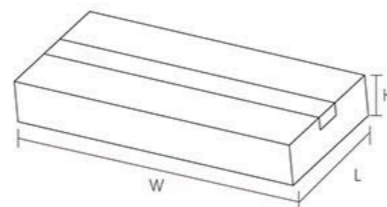


Technical information

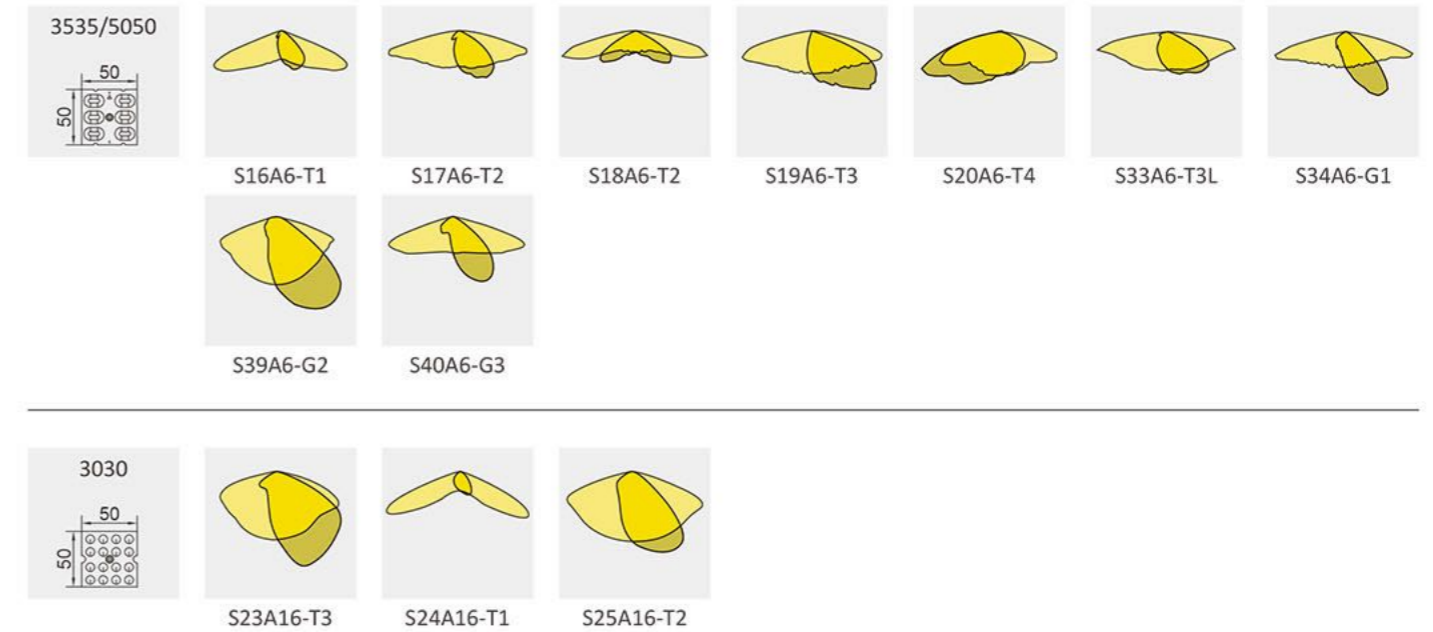
Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70,Ta 25 °C	Driver isolation	Class I or Class II
Wattags	10~350W	Control dimming	DALI / 1-10V / Timing / PWM
Light efficacy	Up to 140lm/W	Operating temperature	-35°C~50°C / 10% ~ 95% (humidity)
CRI	≥ 70 or ≥ 80	Body parts material	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

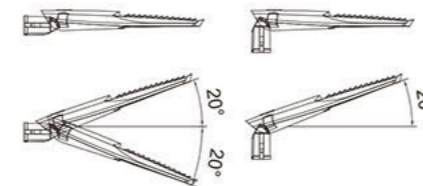
Model	Carton Size(L*W*H)	QTY/Carton	N.W.(kg)	G.W.(kg)
XS TL-LED32-XS	590*245*140mm	1	4.28	4.65
S TL-LED32-S	665*270*135mm	1	5.30	6.15
M TL-LED32-M	730*320*140mm	1	7.00	7.70
L TL-LED32-L	820*360*135mm	1	8.75	9.65



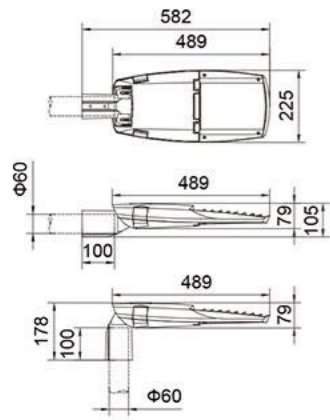
Optics available



Details

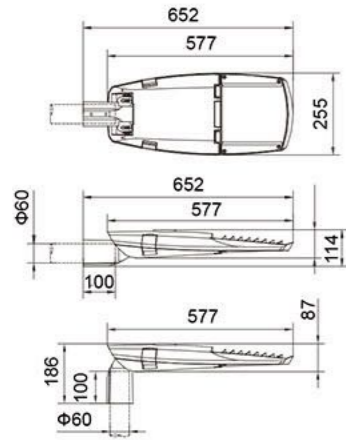


CODE



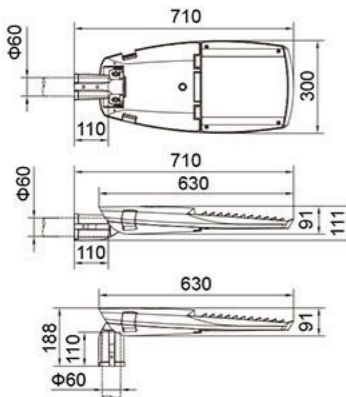
TL-LED32XS

Order code	Chip	LED QTY	Lens Type	Power	Luminaire efficacy Up to(lm/W)	Lifespan L70/B10
132101	5050	12	6	20W	140	> 54,000hrs
132102	5050	18	6	30W	140	> 54,000hrs
132103	5050	24	6	40W	140	> 54,000hrs
132104	5050	36	6	60W	140	> 54,000hrs
132105	3030	32	16	20W	125	> 54,000hrs
132106	3030	48	16	30W	125	> 54,000hrs
132107	3030	64	16	40W	125	> 54,000hrs
132108	3030	96	16	60W	125	> 54,000hrs



TL-LED32S

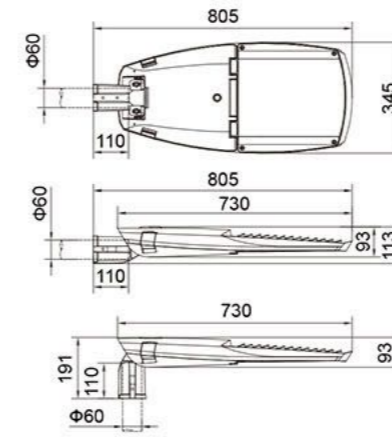
Order code	Chip	LED QTY	Lens Type	Power	Luminaire efficacy Up to(lm/W)	Lifespan L70/B10
132201	5050	36	6	80W	135	> 54,000hrs
132202	5050	54	6	100W	136	> 54,000hrs
132203	5050	54	6	120W	135	> 54,000hrs
132204	3030	96	16	80W	125	> 54,000hrs
132205	3030	144	16	100W	125	> 54,000hrs
132206	3030	144	16	120W	125	> 54,000hrs



TL-LED32M

Order code	Chip	LED QTY	Lens Type	Power	Luminaire efficacy Up to(lm/W)	Lifespan L70/B10
132301	5050	54	6	100W	138	> 54,000hrs
132302	5050	72	6	150W	136	> 54,000hrs
132303	3030	144	16	100W	125	> 54,000hrs
132304	3030	192	16	150W	121	> 54,000hrs

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



TL-LED32L

Order code	Chip	LED QTY	Lens Type	Power	Luminaire efficacy Up to(lm/W)	Lifespan L70/B10
132401	5050	96	6	200W	138	> 54,000hrs
132402	5050	120	6	240W	136	> 54,000hrs
132403	5050	120	6	280W	125	> 54,000hrs
132404	3030	256	16	200W	121	> 54,000hrs
132405	3030	320	16	240W	122	> 54,000hrs
132406	3030	320	16	280W	117	> 54,000hrs

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

TWO SIZE

40W~100W
CxS:0.133m²
ø76mm / ø60mm

S



120W~200W
CxS:0.248m²
ø76mm / ø60mm

M

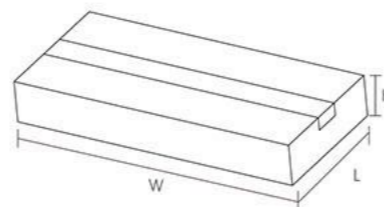


Technical information

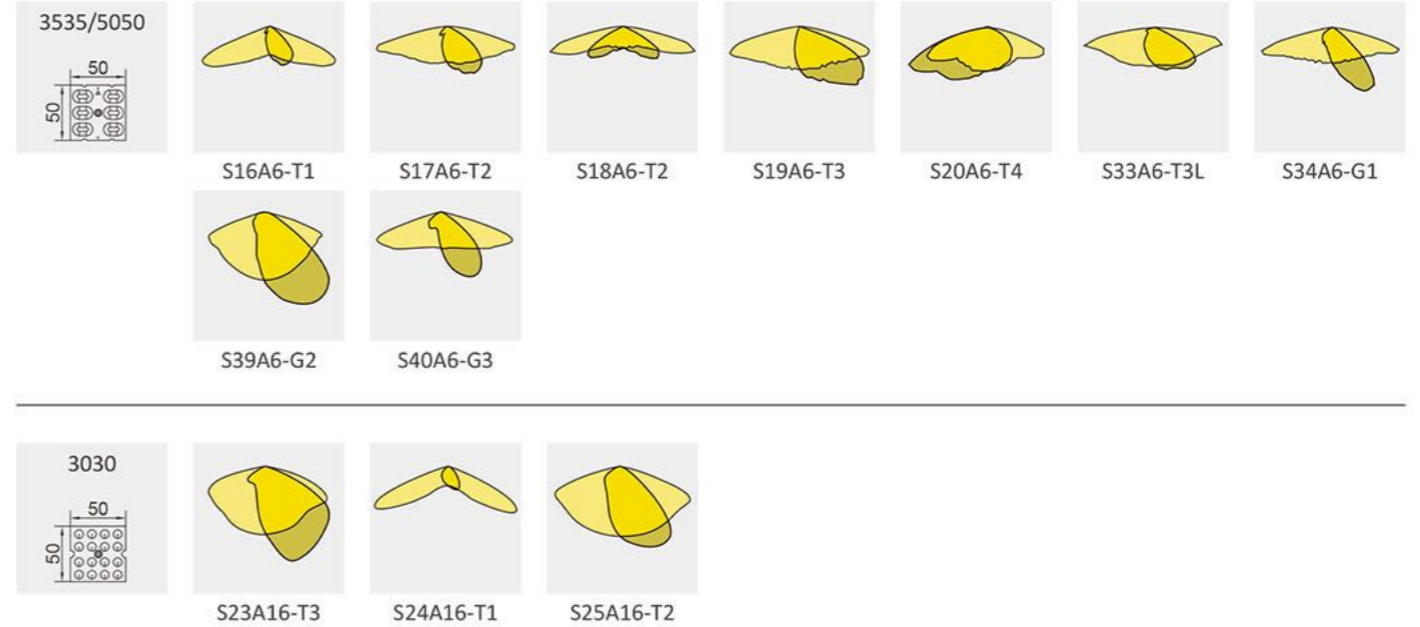
Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70, Ta 25 °C	Driver isolation	Class I or Class II
Wattags	10~350W	Control dimming	DALI / 1-10V / Timing / PWM
Light efficacy	Up to 147lm/W	Operating temperature	-35°C~50°C / 10% ~ 95% (humidity)
CRI	≥ 70 or ≥ 80	Body parts 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-LED26GS	600*265*130mm	1	5.88	6.15
M TL-LED26GM	810*360*160mm	1	7.25	8.90



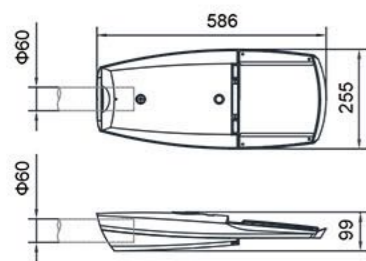
Optics available



Details

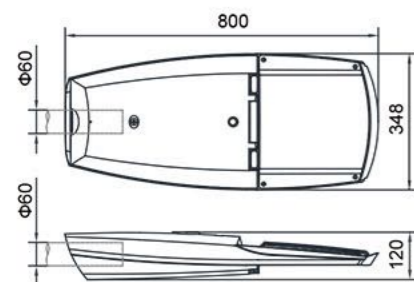


CODE



TL-LED26GS

Order code	Chip	LED QTY	Lens Type	Power	Luminaire efficacy Up to(lm/W)	Lifespan L70/B10
126101	5050	18	6	40W	145	> 54,000hrs
126102	5050	36	6	80W	145	> 54,000hrs
126103	5050	54	6	100W	150	> 54,000hrs
126104	3030	48	16	40W	123	> 54,000hrs
126105	3030	96	16	80W	123	> 54,000hrs
126106	3030	144	16	100W	127	> 54,000hrs

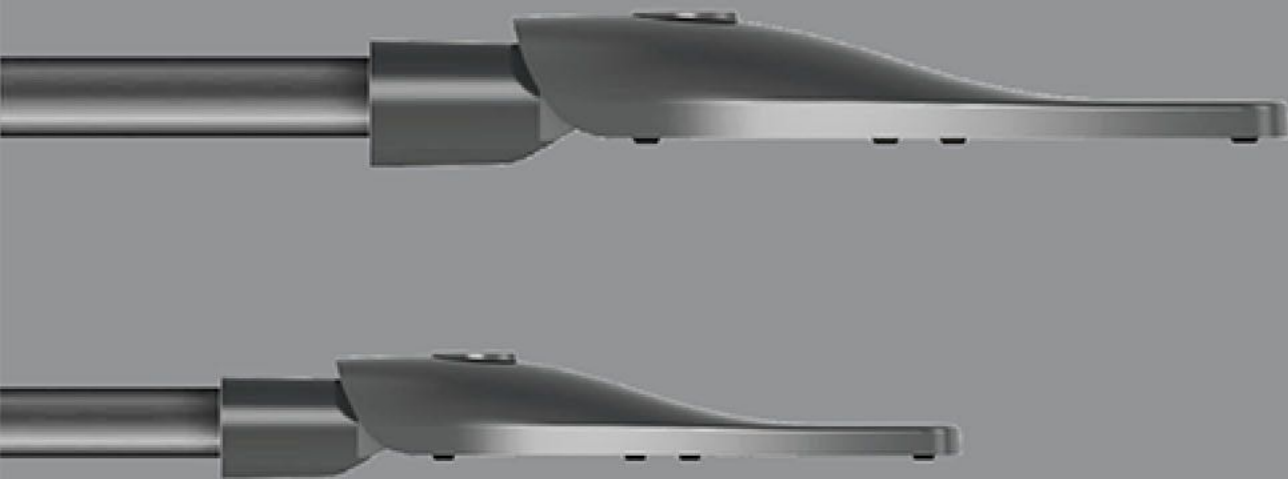


TL-LED26GM

Order code	Chip	LED QTY	Lens Type	Power	Luminaire efficacy Up to(lm/W)	Lifespan L70/B10
126201	5050	54	6	120W	145	> 54,000hrs
126202	5050	72	6	150W	147	> 54,000hrs
126203	5050	96	6	200W	147	> 54,000hrs
126204	3030	144	16	120W	123	> 54,000hrs
126205	3030	192	16	150W	125	> 54,000hrs
126206	3030	256	16	200W	125	> 54,000hrs

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

CUE



CUE is elegant with streamlined design.

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



TWO SIZE

30W~60W
CxS:0.030m²
ø76mm / ø60mm

S



80W~120W
CxS:0.042m²
ø76mm / ø60mm

M

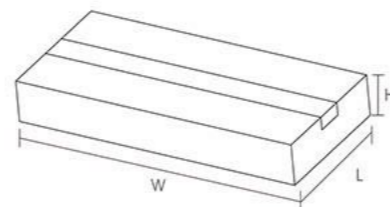


Technical information

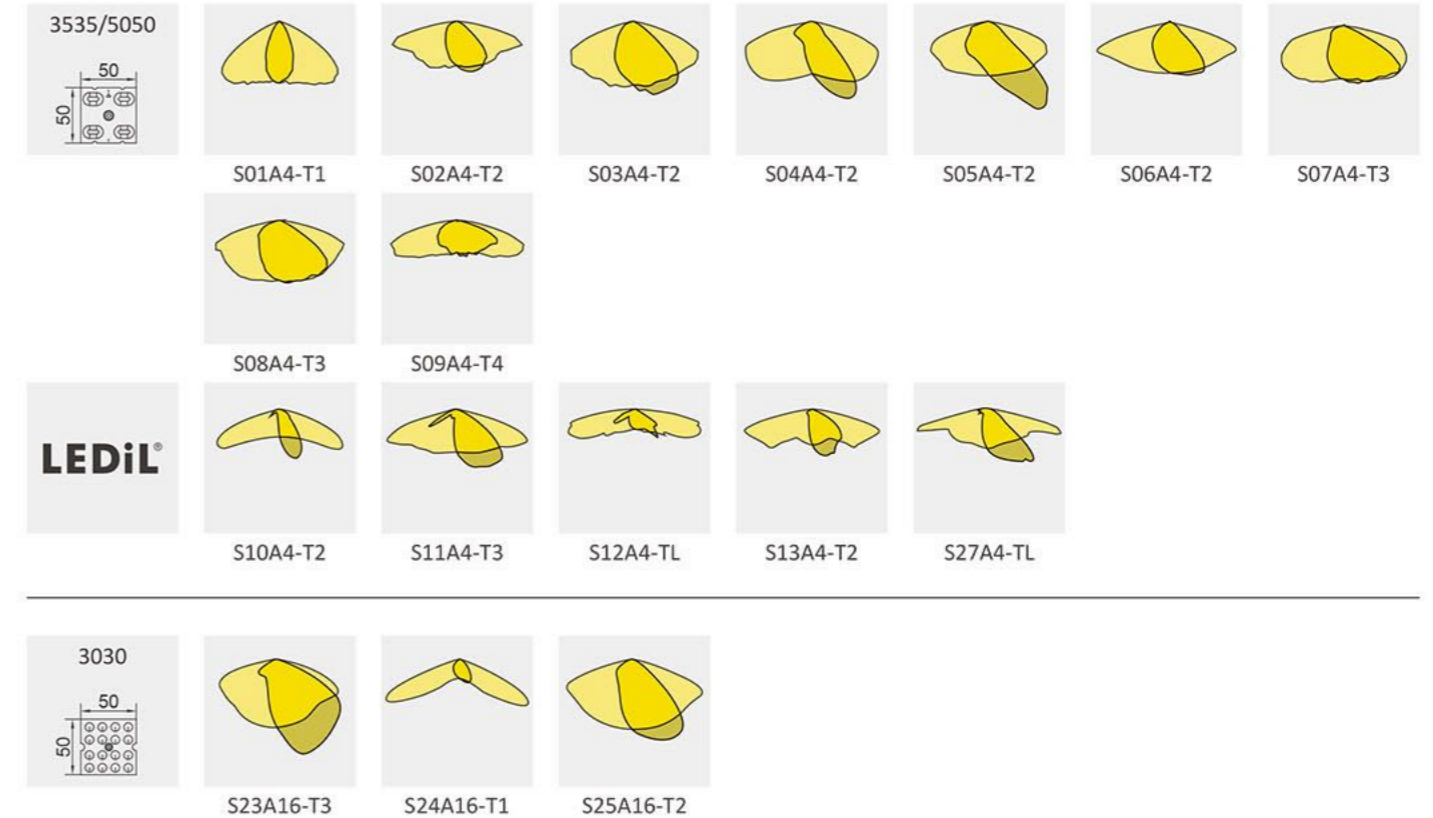
Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70,Ta 25°C	Driver isolation	Class I or Class II
Wattags	10~350W	Control dimming	DALI / 1-10V / Timing / PWM
Light efficacy	Up to 150lm/W	Operating temperature	-35°C~50°C / 10% ~ 95% (humidity)
CRI	≥ 70 or ≥ 80	Body parts material	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

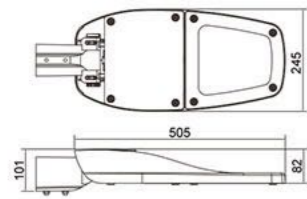
Model	Carton Size(L*W*H)	QTY/Carton	N.W.(kg)	G.W.(kg)
S TL-LED33S	595*275*145mm	1	5.55	7.05
M TL-LED33M	810*368*166mm	1	10.06	11.56



Optics available

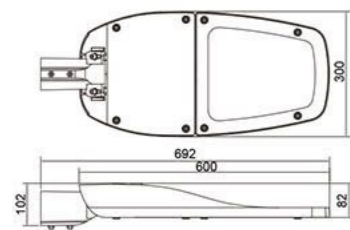


CODE



TL-LED33-S

Order code	Chip	LED QTY	Lens Type	Power	Luminaire efficacy Up to(lm/W)	Lifespan L70/B10
133101	5050	12	4	30W	146	> 54,000hrs
133102	5050	24	4	60W	146	> 54,000hrs
133103	3535	12	4	30W	129	> 108,000hrs
133104	3535	24	4	60W	129	> 108,000hrs
133105	5050	18	6	30W	136	> 54,000hrs
133106	5050	36	6	60W	136	> 54,000hrs
133107	3535	18	6	30W	128	> 108,000hrs
133108	3535	36	6	60W	128	> 108,000hrs
133109	3030	48	16	30W	125	> 54,000hrs
133110	3030	96	16	60W	125	> 54,000hrs



TL-LED33-M

Order code	Chip	LED QTY	Lens Type	Power	Luminaire efficacy Up to(lm/W)	Lifespan L70/B10
133201	5050	36	4	80W	150	> 54,000hrs
133202	5050	48	4	120W	146	> 54,000hrs
133203	3535	36	4	80W	131	> 108,000hrs
133204	3535	48	4	120W	129	> 108,000hrs
133205	5050	54	6	80W	138	> 54,000hrs
133206	5050	72	6	120W	136	> 54,000hrs
133207	3535	54	6	80W	130	> 108,000hrs
133208	3535	72	6	120W	128	> 108,000hrs
133209	3030	144	16	80W	127	> 54,000hrs
133210	3030	192	16	120W	125	> 54,000hrs

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

TWO SIZE

20W~60W
CxS:0.030m²
ø76mm / ø60mm

S



80W~120W
CxS:0.050m²
ø76mm / ø60mm

L

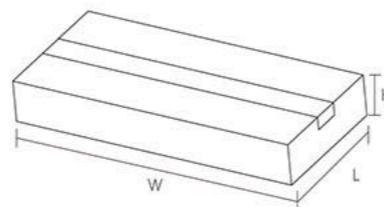


Technical information

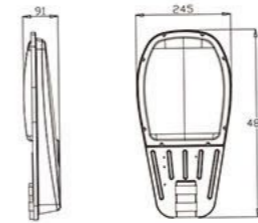
Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70,Ta 25 °C	Driver isolation	Class I or Class II
Wattags	10~350W	Control dimming	DALI / 1-10V / Timing / PWM
Light efficacy	Up to 125lm/W	Operating temperature	-35°C~50°C / 10% ~ 95% (humidity)
CRI	≥ 70 or ≥ 80	Body parts material	ADC12 (standard) / LM6 (option)
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

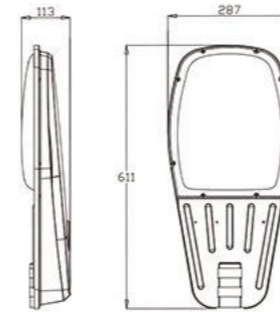
Model	Carton Size(L*W*H)	QTY/Carton	N.W.(kg)	G.W.(kg)
S TL-LED9IS	595*275*145mm	1	5.55	7.05
M TL-LED9IM	810*368*166mm	1	10.06	11.56



Optics available



HYDD-LED91S



HYDD-LED91M

Order code	Chip	LED QTY	Lens Type	Power	Luminaire efficacy Up to(lm/W)	Lifespan L70/B10
191101	3030	48	16	20W	125	> 54,000hrs
191102	3030	64	16	40W	125	> 54,000hrs
191103	3030	96	16	60W	125	> 54,000hrs

Order code	Chip	LED QTY	Lens Type	Power	Luminaire efficacy Up to(lm/W)	Lifespan L70/B10
191101	3030	48	16	80W	125	> 54,000hrs
191102	3030	64	16	100W	125	> 54,000hrs
191103	3030	96	16	120W	125	> 54,000hrs

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

ONE SIZE

10W~30W
CxS:0.028m²
ø76mm / ø60mm

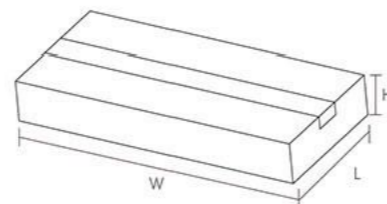


Technical information

Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70,Ta 25°C	Driver isolation	Class I or Class II
Wattags	10~30W	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	ADC12 (standard) / LM6 (option)
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

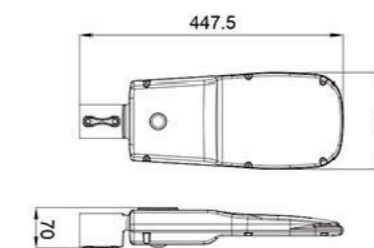
Model	Carton Size(L*W*H)	QTY/Carton	N.W.(kg)	G.W.(kg)
TL-LED92	595*275*145mm	1	5.55	7.05



Optics available



Details



Order code	Chip	LED QTY	Lens Type	Power	Luminaire efficacy Up to(lm/W)	Lifespan L70/B10
192101	3030	28	14	10W	120	> 54,000hrs
192102	3030	42	14	20W	120	> 54,000hrs
192103	3030	42	14	30W	120	> 54,000hrs

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

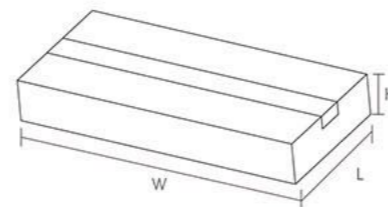


Technical information

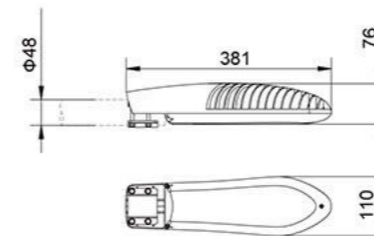
Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70, Ta 25°C	Driver isolation	Class I or Class II
Wattags	10~20W	Control dimming	DALI / 1-10V / Timing / PWM
Light efficacy	Up to 110lm/W	Operating temperature	-35°C~50°C / 10% ~ 95% (humidity)
CRI	≥ 70 or ≥ 80	Body parts material	ADC12 (standard) / LM6 (option)
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-LED08	595*275*145mm	1	5.55	7.05



Details



Order code	Chip	LED QTY	Lens Type	Power	Luminaire efficacy Up to(lm/W)	Lifespan L70/B10
108101	3030	14	14	10W	110	> 54,000hrs
108102	3030	28	14	20W	110	> 54,000hrs

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



GARDEN LIGHT



Atlas
TL-LED27A



Sodor
TL-LED27F



Mica
TL-LED27D



Drone
TL-LED27H



Rud
TL-LED27B



Mad
TL-LED27J



Luna
TL-LED27G

ONE SIZE

TL-LED27A

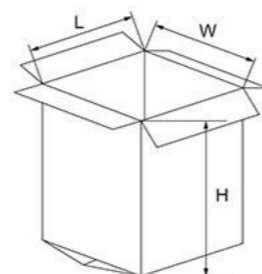


Technical information

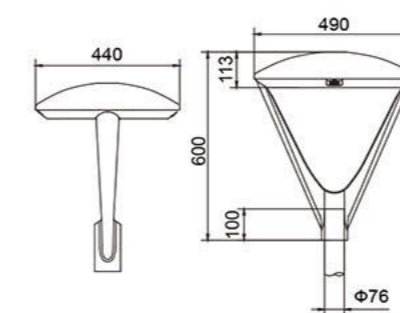
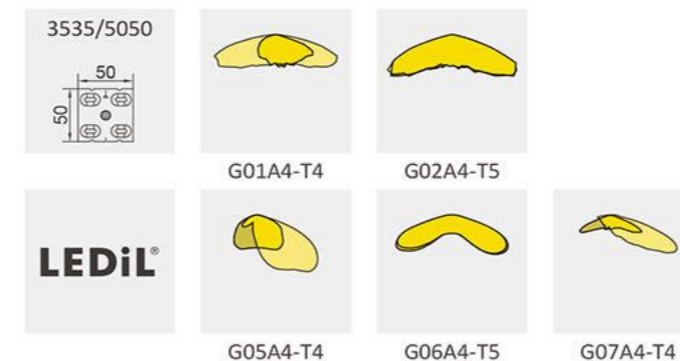
Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70, Ta 25 C	Driver isolation	Class I or Class II
Wattags	20~100W	Control dimming	DALI / 1-10V / Timing / PWM
Light efficacy	Up to 129lm/W	Operating temperature	-35°C~50°C / 10% ~ 95% (humidity)
CRI	≥ 70 or ≥ 80	Body parts material	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-LED27A	505*455*600mm	1	9.3	13.8



Optics available



Order code	Chip	LED QTY	Lens Type	Power	Luminaire efficacy Up to(lm/W)	Lifespan L70/B10
227101	5050	8	4	20W	128	> 54,000hrs
227101	5050	16	4	40W	128	> 54,000hrs
227102	5050	24	4	60W	128	> 54,000hrs
227103	5050	32	4	80W	128	> 54,000hrs
227104	5050	48	4	100W	129	> 54,000hrs
227101	3535	8	4	20W	115	> 108,000hrs
227105	3535	16	4	40W	115	> 108,000hrs
227106	3535	24	4	60W	115	> 108,000hrs
227107	3535	32	4	80W	115	> 108,000hrs
227108	3535	48	4	100W	118	> 108,000hrs

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

ONE SIZE

TL-LED27B

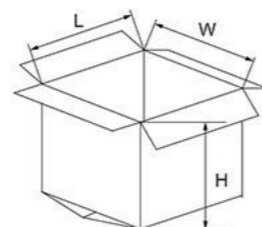


Technical information

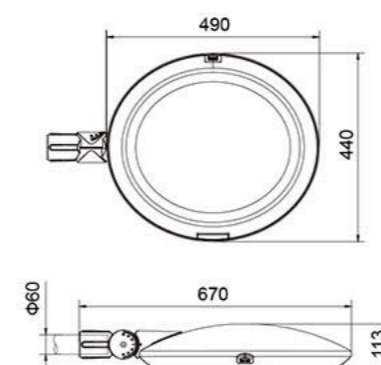
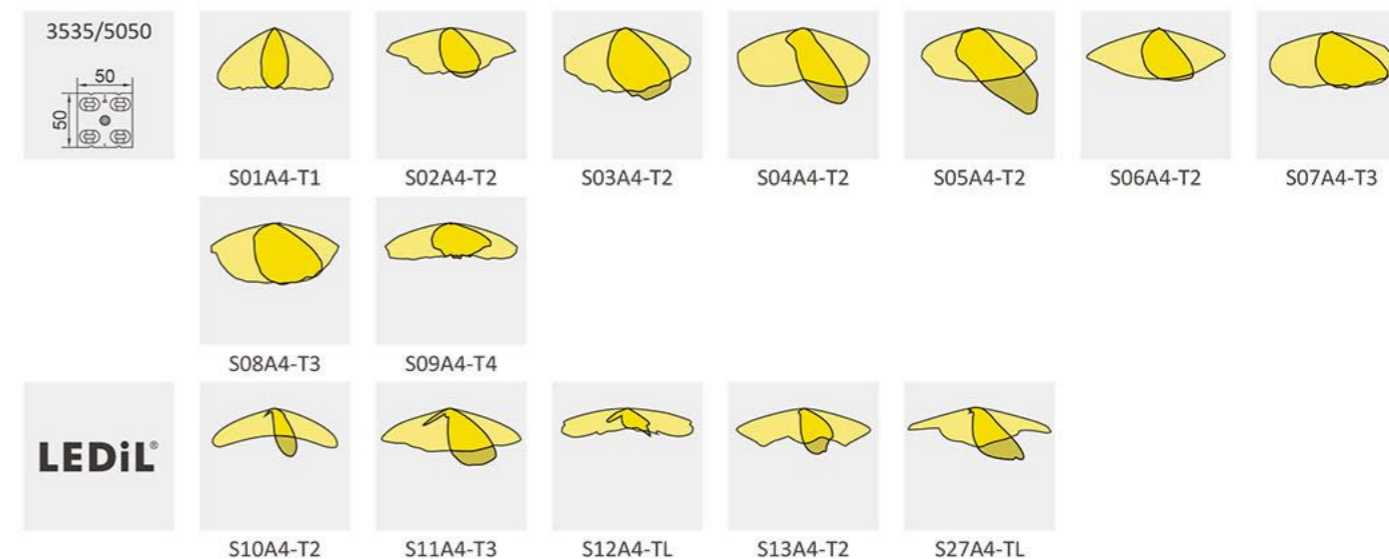
Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70, Ta 25°C	Driver isolation	Class I or Class II
Wattags	20~100W	Control dimming	DALI / 1-10V / Timing / PWM
Light efficacy	Up to 143lm/W	Operating temperature	-35°C~50°C / 10% ~ 95% (humidity)
CRI	≥ 70 or ≥ 80	Body parts material	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-LED27B	705*475*150mm	1	9.25	11.7



Optics available



Order code	Chip	LED QTY	Lens Type	Power	Luminaire efficacy Up to(lm/W)	Lifespan L70/B10
227101	5050	8	4	20W	140	> 54,000hrs
227202	5050	16	4	40W	140	> 54,000hrs
227203	5050	24	4	60W	140	> 54,000hrs
227204	5050	32	4	80W	140	> 54,000hrs
227205	5050	48	4	100W	143	> 54,000hrs
227206	3535	8	4	20W	130	> 108,000hrs
227207	3535	16	4	40W	130	> 108,000hrs
227208	3535	24	4	60W	130	> 108,000hrs
227209	3535	32	4	80W	130	> 108,000hrs
227210	3535	48	4	100W	134	> 108,000hrs

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

ONE SIZE

TL-LED27F

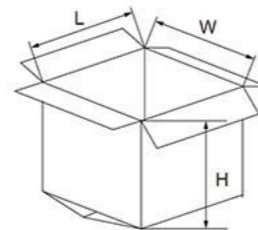


Technical information

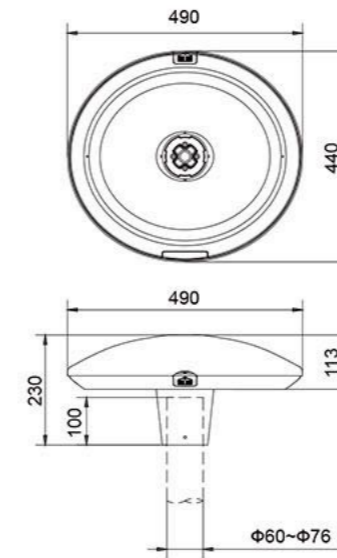
Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70, Ta 25°C	Driver isolation	Class I or Class II
Wattags	20~100W	Control dimming	DALI / 1-10V / Timing / PWM
Light efficacy	Up to 130lm/W	Operating temperature	-35°C~50°C / 10% ~ 95% (humidity)
CRI	≥ 70 or ≥ 80	Body parts material	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-LED27F	505*455*260mm	1	10.0	11.3



Optics available



Order code	Chip	LED QTY	Lens Type	Power	Luminaire efficacy Up to(lm/W)	Lifespan L70/B10
227401	5050	8	4	20W	130	> 54,000hrs
227402	5050	16	4	40W	130	> 54,000hrs
227403	5050	24	4	60W	130	> 54,000hrs
227404	5050	32	4	80W	130	> 54,000hrs
227405	5050	48	4	100W	130	> 54,000hrs
227406	3535	8	4	20W	120	> 108,000hrs
227407	3535	16	4	40W	120	> 108,000hrs
227408	3535	24	4	60W	120	> 108,000hrs
227409	3535	32	4	80W	120	> 108,000hrs
227410	3535	48	4	100W	120	> 108,000hrs

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

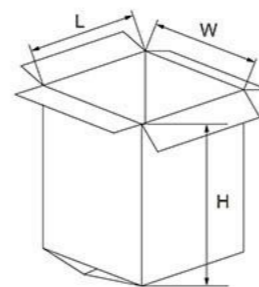


Technical information

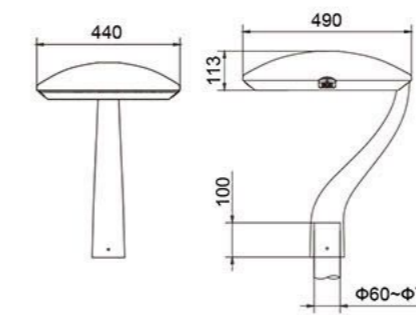
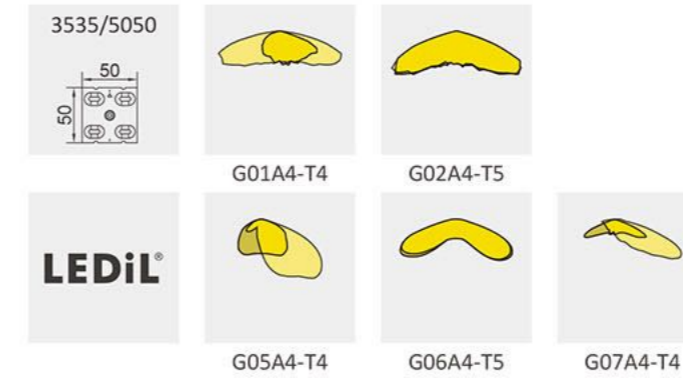
Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70, Ta 25°C	Driver isolation	Class I or Class II
Wattags	20~100W	Control dimming	DALI / 1-10V / Timing / PWM
Light efficacy	Up to 135lm/W	Operating temperature	-35°C~50°C / 10% ~ 95% (humidity)
CRI	≥ 70 or ≥ 80	Body parts material	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-LED27D	505*455*630mm	1	10.0	11.3



Optics available



Order code	Chip	LED QTY	Lens Type	Power	Luminaire efficacy Up to(lm/W)	Lifespan L70/B10
227301	5050	8	4	20W	133	> 54,000hrs
227302	5050	16	4	40W	133	> 54,000hrs
227303	5050	24	4	60W	133	> 54,000hrs
227304	5050	32	4	80W	133	> 54,000hrs
227305	5050	48	4	100W	135	> 54,000hrs
227306	3535	8	4	20W	117	> 108,000hrs
227307	3535	16	4	40W	117	> 108,000hrs
227308	3535	24	4	60W	117	> 108,000hrs
227309	3535	32	4	80W	117	> 108,000hrs
227310	3535	48	4	100W	123	> 108,000hrs

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

ONE SIZE

TL-LED27G

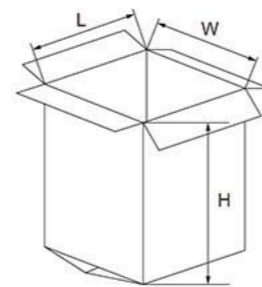


Technical information

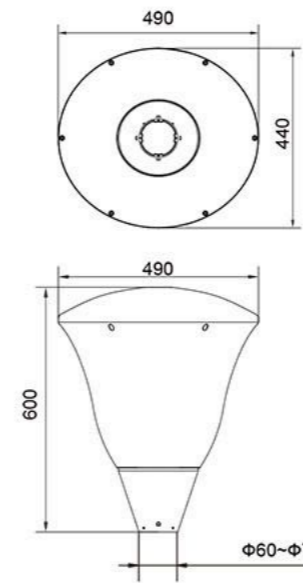
Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70,Ta 25°C	Driver isolation	Class I or Class II
Wattags	20~60W	Control dimming	DALI / 1-10V / Timing / PWM
Light efficacy	Up to 140lm/W	Operating temperature	-35°C~50°C / 10% ~ 95% (humidity)
CRI	≥ 70 or ≥ 80	Body parts material	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-LED27G	505*455*630mm	1	10.0	11.3



Optics available



Order code	Chip	LED QTY	Lens Type	Power	Luminaire efficacy Up to(lm/W)	Lifespan L70/B10
227501	5050	8	4	20W	140	> 54,000hrs
227502	5050	16	4	40W	140	> 54,000hrs
227503	5050	24	4	60W	140	> 54,000hrs
227504	3535	8	4	20W	120	> 108,000hrs
227505	3535	16	4	40W	120	> 108,000hrs
227506	3535	24	4	60W	120	> 108,000hrs

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

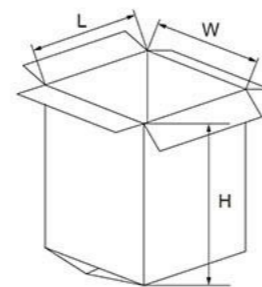


Technical information

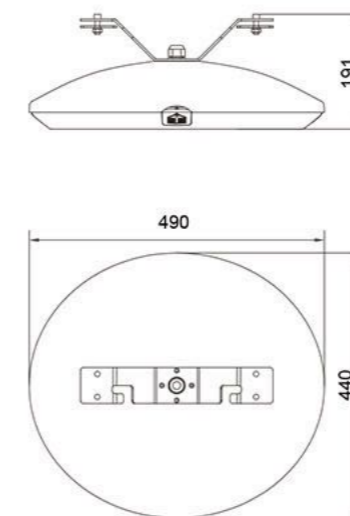
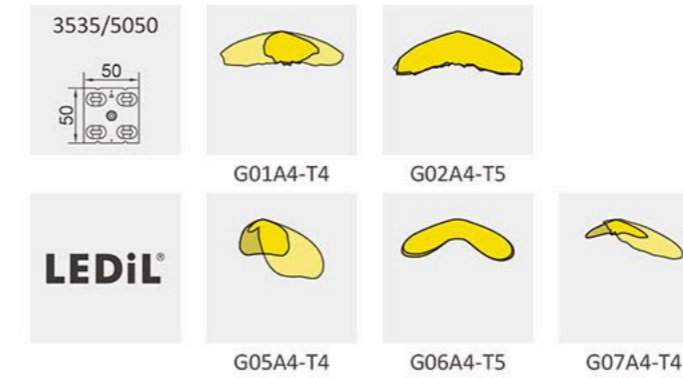
Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70,Ta 25 °C	Driver isolation	Class I or Class II
Wattags	20~100W	Control dimming	DALI / 1-10V / Timing / PWM
Light efficacy	Up to 140lm/W	Operating temperature	-35°C~50°C / 10% ~ 95% (humidity)
CRI	≥ 70 or ≥ 80	Body parts material	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-LED27H	515*455*220mm	1	10.0	11.3



Optics available



Order code	Chip	LED QTY	Lens Type	Power	Luminaire efficacy Up to(lm/W)	Lifespan L70/B10
227601	5050	8	4	20W	140	> 54,000hrs
227602	5050	16	4	40W	140	> 54,000hrs
227603	5050	24	4	60W	140	> 54,000hrs
227604	5050	32	4	80W	140	> 54,000hrs
227605	5050	48	4	100W	143	> 54,000hrs
227606	3535	8	4	20W	130	> 108,000hrs
227607	3535	16	4	40W	130	> 108,000hrs
227608	3535	24	4	60W	130	> 108,000hrs
227609	3535	32	4	80W	130	> 108,000hrs
227610	3535	48	4	100W	134	> 108,000hrs

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

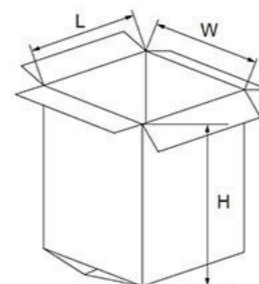


Technical information

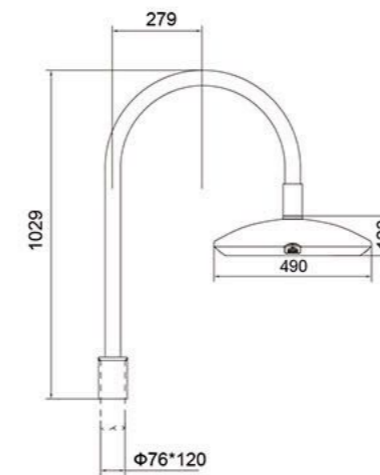
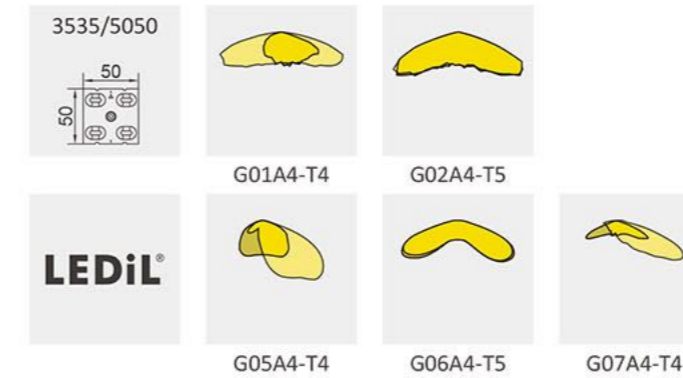
Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70, Ta 25 °C	Driver isolation	Class I or Class II
Wattags	20~100W	Control dimming	DALI / 1-10V / Timing / PWM
Light efficacy	Up to 143lm/W	Operating temperature	-35°C~50°C / 10% ~ 95% (humidity)
CRI	≥ 70 or ≥ 80	Body parts 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-LED27J	505*455*140mm	1	10.0	11.3



Optics available



Order code	Chip	LED QTY	Lens Type	Power	Luminaire efficacy Up to(lm/W)	Lifespan L70/B10
227701	5050	8	4	20W	140	> 54,000hrs
227702	5050	16	4	40W	140	> 54,000hrs
227703	5050	24	4	60W	140	> 54,000hrs
227704	5050	32	4	80W	140	> 54,000hrs
227705	5050	48	4	100W	143	> 54,000hrs
227706	3535	8	4	20W	130	> 108,000hrs
227707	3535	16	4	40W	130	> 108,000hrs
227708	3535	24	4	60W	130	> 108,000hrs
227709	3535	32	4	80W	130	> 108,000hrs
227710	3535	48	4	100W	134	> 108,000hrs

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

GARDEN LIGHT



Globo
TL-LED95



Guadua
TL-LED95B



Bumble
TL-LED95A



Deity
TL-LED95C



Wax
TL-LED95D

ONE SIZE

TL-LED95



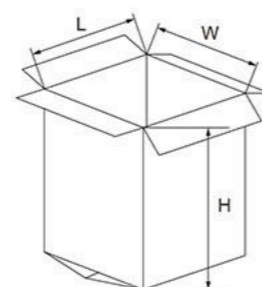
CE CB IP66 IK09

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

Packing Information

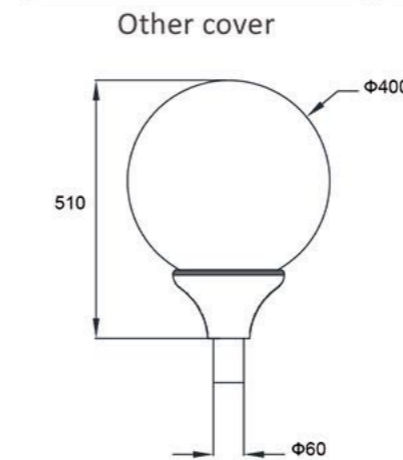
Model	Carton Size(L*W*H)	QTY/Carton	N.W.(kg)	G.W.(kg)
TL-LED95	520*460*600mm	1	10.0	11.3



Optics available



Other option



Order code	Chip	LED QTY	Lens Type	Power	Luminaire efficacy Up to(lm/W)	Lifespan L70/B10
295101	5050	24	24	30W	130	> 54,000hrs
295102	5050	30	30	40W	130	> 54,000hrs
295103	5050	36	36	50W	130	> 54,000hrs

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

ONE SIZE

TL-LED95B



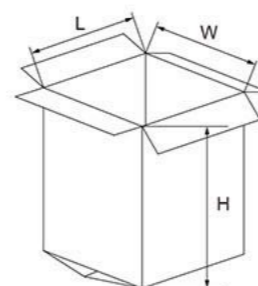
CE CB IP66 IK09

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

Packing Information

Model	Carton Size(L*W*H)	QTY/Carton	N.W.(kg)	G.W.(kg)
TL-LED95B	520*460*600mm	1	10.0	11.3



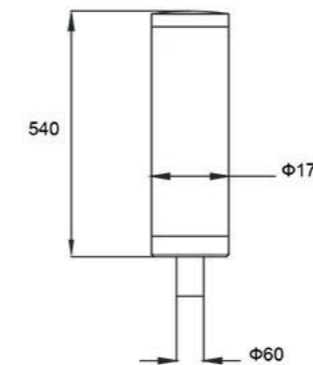
Optics available



Other option



HYT-LED95D(With pole)



Order code	Chip	LED QTY	Lens Type	Power	Luminaire efficacy Up to(lm/W)	Lifespan L70/B10
295301	5050	24	24	30W	130	> 54,000hrs
295302	5050	30	30	40W	130	> 54,000hrs
295303	5050	36	36	50W	130	> 54,000hrs

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



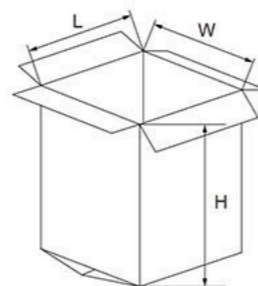
CE CB IP66 IK09

Technical information

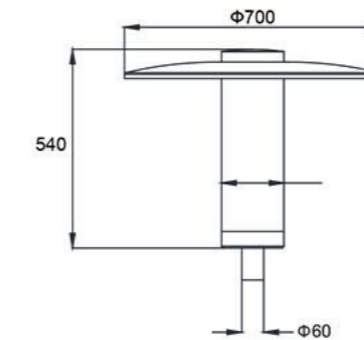
Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70, Ta 25 °C	Driver isolation	Class I or Class II
Wattags	30~50W	Control dimming	DALI / 1-10V / Timing / PWM
Light efficacy	Up to 130lm/W	Operating temperature	-35°C~50°C / 10% ~ 95% (humidity)
CRI	≥ 70 or ≥ 80	Body parts material	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

Packing Information

Model	Carton Size(L*W*H)	QTY/Carton	N.W.(kg)	G.W.(kg)
TL-LED95A	520*460*600mm	1	10.0	11.3



Optics available



Order code	Chip	LED QTY	Lens Type	Power	Luminaire efficacy Up to(lm/W)	Lifespan L70/B10
295201	5050	24	24	30W	130	> 54,000hrs
295202	5050	30	30	40W	130	> 54,000hrs
295203	5050	36	36	50W	130	> 54,000hrs

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

GARDEN LIGHT



Pluto
TL-LED29



Jupiter
TL-LED29A



Neptune
TL-LED29B



Pretzel
TL-LED29C

ONE SIZE

TL-LED29

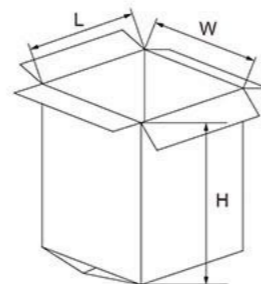


Technical information

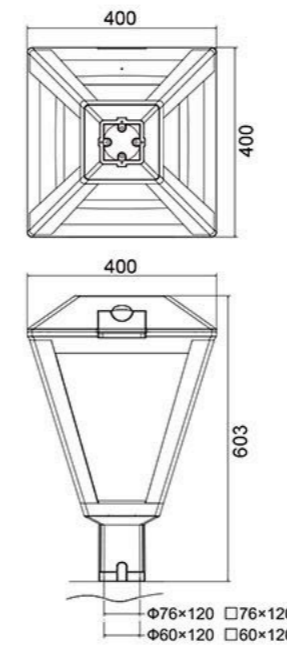
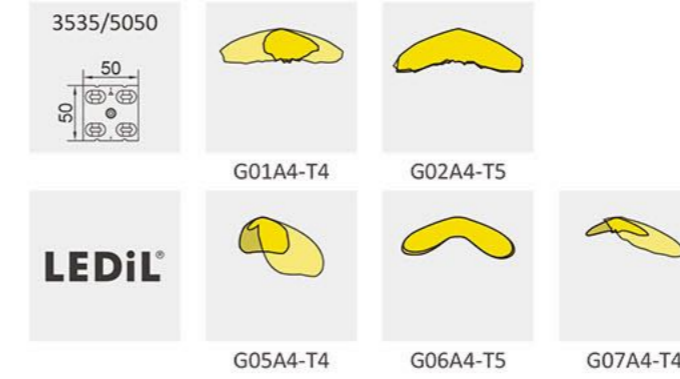
Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70, Ta 25 C	Driver isolation	Class I or Class II
Wattags	20~100W	Control dimming	DALI / 1-10V / Timing / PWM
Light efficacy	Up to 105lm/W	Operating temperature	-35°C~50°C / 10% ~ 95% (humidity)
CRI	≥ 70 or ≥ 80	Body parts material	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-LED29	410*410*635mm	1	10.0	11.3



Optics available



Order code	Chip	LED QTY	Lens Type	Power	Luminaire efficacy Up to(lm/W)	Lifespan L70/B10
229101	5050	5050	4	20W	103	> 54,000hrs
229102	5050	5050	4	40W	103	> 54,000hrs
229103	5050	5050	4	60W	103	> 54,000hrs
229104	5050	5050	4	80W	103	> 54,000hrs
229105	5050	5050	4	100W	105	> 54,000hrs
229106	3535	3535	4	20W	90	> 108,000hrs
229107	3535	3535	4	40W	90	> 108,000hrs
229108	3535	3535	4	60W	90	> 108,000hrs
229109	3535	3535	4	80W	90	> 108,000hrs
229110	3535	3535	4	100W	95	> 108,000hrs

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

ONE SIZE

TL-LED29A

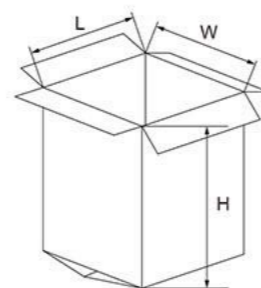


Technical information

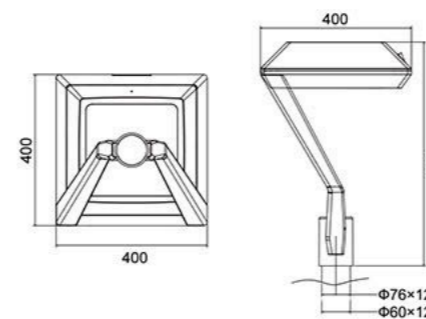
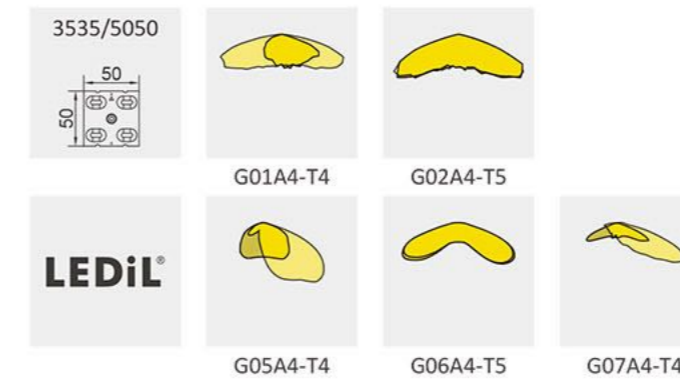
Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70, Ta 25°C	Driver isolation	Class I or Class II
Wattags	20~100W	Control dimming	DALI / 1-10V / Timing / PWM
Light efficacy	Up to 121lm/W	Operating temperature	-35°C~50°C / 10% ~ 95% (humidity)
CRI	≥ 70 or ≥ 80	Body parts material	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-LED29A	410*410*610mm	1	10.0	11.3



Optics available



Order code	Chip	LED QTY	Lens Type	Power	Luminaire efficacy Up to(lm/W)	Lifespan L70/B10
229201	5050	5050	4	20W	118	> 54,000hrs
229202	5050	5050	4	40W	118	> 54,000hrs
229203	5050	5050	4	60W	118	> 54,000hrs
229204	5050	5050	4	80W	118	> 54,000hrs
229205	5050	5050	4	100W	119	> 54,000hrs
229206	3535	3535	4	20W	115	> 108,000hrs
229207	3535	3535	4	40W	115	> 108,000hrs
229208	3535	3535	4	60W	115	> 108,000hrs
229209	3535	3535	4	80W	115	> 108,000hrs
229210	3535	3535	4	100W	121	> 108,000hrs

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

ONE SIZE

TL-LED29B

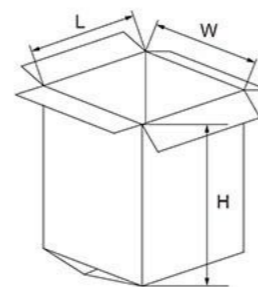


Technical information

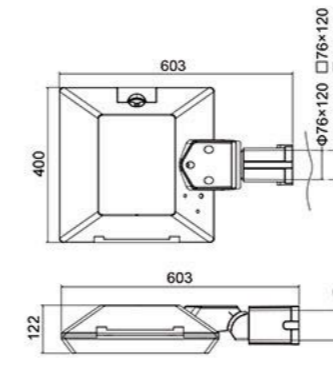
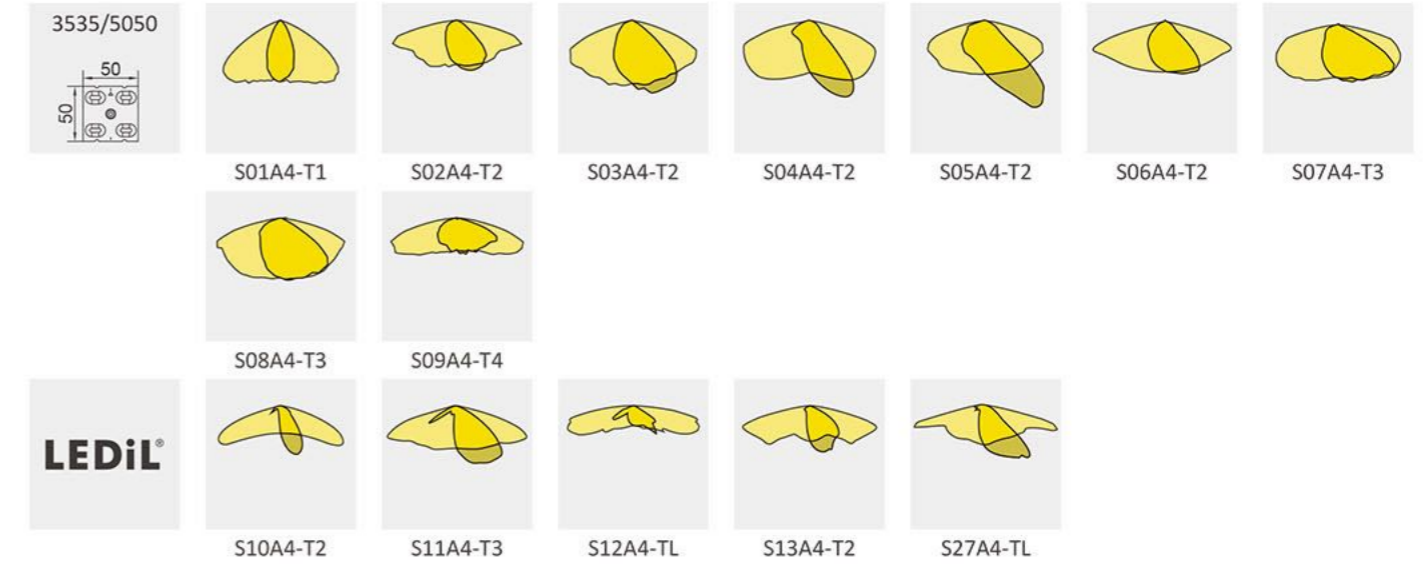
Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70, Ta 25°C	Driver isolation	Class I or Class II
Wattags	20~100W	Control dimming	DALI / 1-10V / Timing / PWM
Light efficacy	Up to 140lm/W	Operating temperature	-35°C~50°C / 10% ~ 95% (humidity)
CRI	≥ 70 or ≥ 80	Body parts material	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-LED29B	610*410*155mm	1	10.0	11.3



Optics available



Order code	Chip	LED QTY	Lens Type	Power	Luminaire efficacy Up to(lm/W)	Lifespan L70/B10
229301	5050	5050	4	20W	140	> 54,000hrs
229302	5050	5050	4	40W	140	> 54,000hrs
229303	5050	5050	4	60W	140	> 54,000hrs
229304	5050	5050	4	80W	140	> 54,000hrs
229305	5050	5050	4	100W	143	> 54,000hrs
229306	3535	3535	4	20W	130	> 108,000hrs
229307	3535	3535	4	40W	130	> 108,000hrs
229308	3535	3535	4	60W	130	> 108,000hrs
229309	3535	3535	4	80W	130	> 108,000hrs
229310	3535	3535	4	100W	134	> 108,000hrs

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

ONE SIZE

TL-LED29C

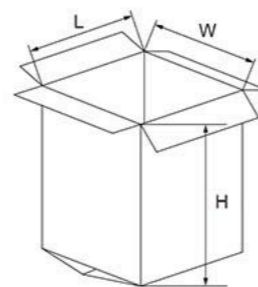


Technical information

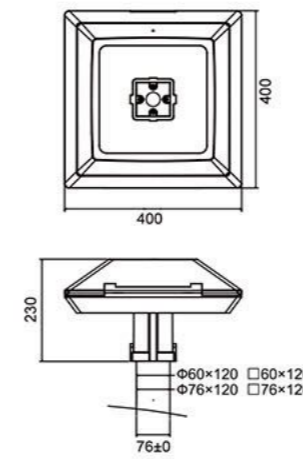
Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70, Ta 25°C	Driver isolation	Class I or Class II
Wattags	20~100W	Control dimming	DALI / 1-10V / Timing / PWM
Light efficacy	Up to 140lm/W	Operating temperature	-35°C~50°C / 10% ~ 95% (humidity)
CRI	≥ 70 or ≥ 80	Body parts material	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-LED29C	415*415*240mm	1	10.0	11.3



Optics available



Order code	Chip	LED QTY	Lens Type	Power	Luminaire efficacy Up to(lm/W)	Lifespan L70/B10
229401	5050	5050	4	20W	140	> 54,000hrs
229402	5050	5050	4	40W	140	> 54,000hrs
229403	5050	5050	4	60W	140	> 54,000hrs
229404	5050	5050	4	80W	140	> 54,000hrs
229405	5050	5050	4	100W	143	> 54,000hrs
229406	3535	3535	4	20W	130	> 108,000hrs
229407	3535	3535	4	40W	130	> 108,000hrs
229408	3535	3535	4	60W	130	> 108,000hrs
229409	3535	3535	4	80W	130	> 108,000hrs
229410	3535	3535	4	100W	134	> 108,000hrs

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

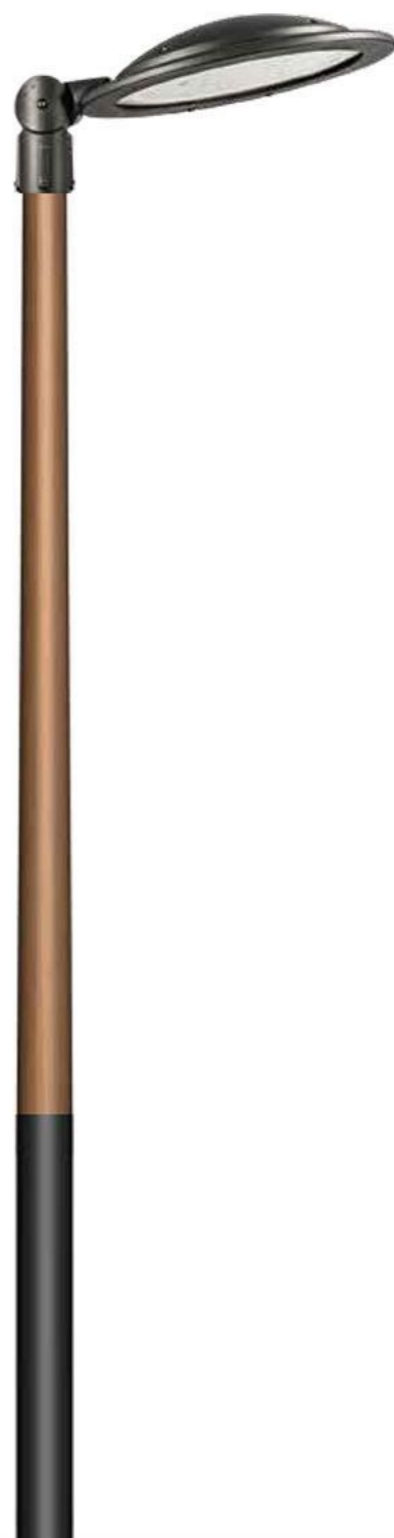
GARDEN LIGHT



Lada
TL-LED25



Polo
TL-LED25N



Atom
TL-LED25B



Bursa
TL-LED25A



Rhea
TL-LED25J



Hagen
TL-LED25H

ONE SIZE

TL-LED25

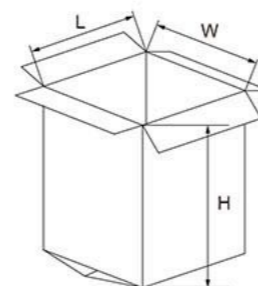


Technical information

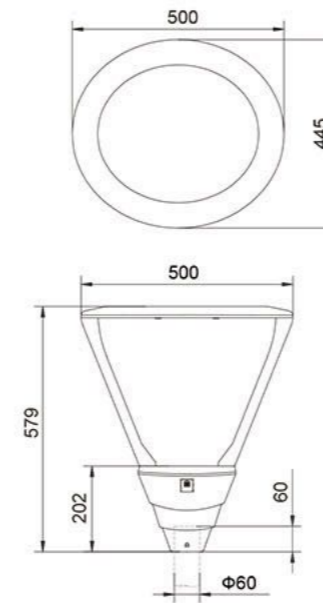
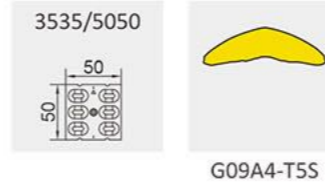
Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70, Ta 25°C	Driver isolation	Class I or Class II
Wattage	40~100W	Control dimming	DALI / 1-10V / Timing / PWM
Light efficacy	Up to 116lm/W	Operating temperature	-35°C~50°C / 10% ~ 95% (humidity)
CRI	≥ 70 or ≥ 80	Body parts material	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-LED25	520*460*600mm	1	10.0	11.65



Optics available



Order code	Chip	LED QTY	Lens Type	Power	Luminaire efficacy Up to(lm/W)	Lifespan L70/B10
225101	5050	24	6	40W	116	> 54,000hrs
225102	5050	36	6	60W	116	> 54,000hrs
225103	5050	36	6	80W	109	> 54,000hrs
225104	5050	54	6	100W	113	> 54,000hrs
225105	3535	24	6	40W	112	> 108,000hrs
225106	3535	36	6	60W	112	> 108,000hrs
225107	3535	36	6	80W	104	> 108,000hrs
225108	3535	54	6	100W	109	> 108,000hrs
225109	3030	56	14	40W	112	> 54,000hrs
225110	3030	84	14	60W	112	> 54,000hrs
225111	3030	126	14	80W	115	> 54,000hrs
225112	3030	126	14	100W	109	> 54,000hrs

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

ONE SIZE

TL-LED25N

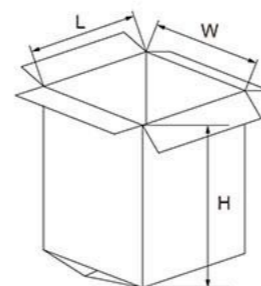


Technical information

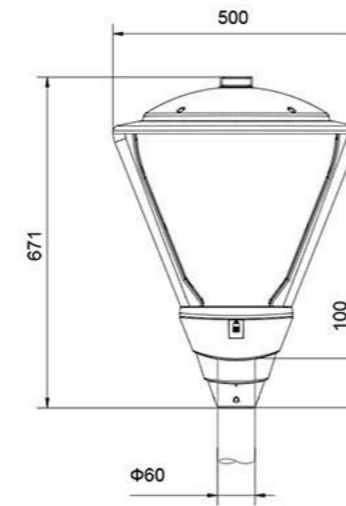
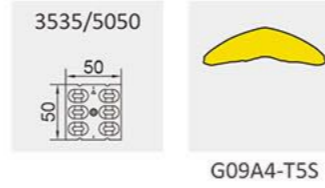
Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70, Ta 25°C	Driver isolation	Class I or Class II
Wattags	40~100W	Control dimming	DALI / 1-10V / Timing / PWM
Light efficacy	Up to 116lm/W	Operating temperature	-35°C~50°C / 10% ~ 95% (humidity)
CRI	≥ 70 or ≥ 80	Body parts material	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-LED25N	520*460*700mm	1	13.0	15.0



Optics available



Order code	Chip	LED QTY	Lens Type	Power	Luminaire efficacy Up to(lm/W)	Lifespan L70/B10
225601	5050	24	6	40W	116	> 54,000hrs
225602	5050	36	6	60W	116	> 54,000hrs
225603	5050	36	6	80W	109	> 54,000hrs
225604	5050	54	6	100W	113	> 54,000hrs
225605	3535	24	6	40W	112	> 108,000hrs
225606	3535	36	6	60W	112	> 108,000hrs
225607	3535	36	6	80W	104	> 108,000hrs
225608	3535	54	6	100W	109	> 108,000hrs
225609	3030	56	14	40W	112	> 54,000hrs
225610	3030	84	14	60W	112	> 54,000hrs
225611	3030	126	14	80W	115	> 54,000hrs
225612	3030	126	14	100W	109	> 54,000hrs

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

ONE SIZE

TL-LED25B

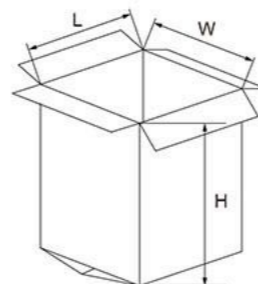


Technical information

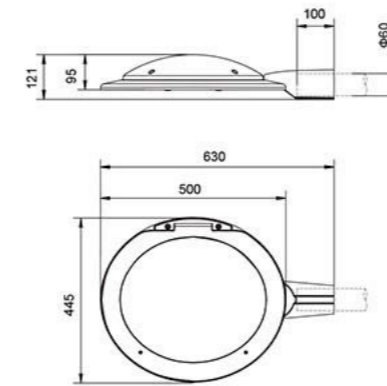
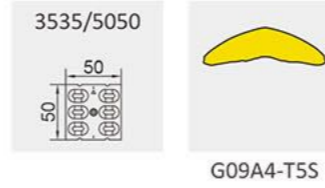
Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70, Ta 25°C	Driver isolation	Class I or Class II
Wattags	40~100W	Control dimming	DALI / 1-10V / Timing / PWM
Light efficacy	Up to 140lm/W	Operating temperature	-35°C~50°C / 10% ~ 95% (humidity)
CRI	≥ 70 or ≥ 80	Body parts material	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-LED25B	515*460*220mm	1	10.0	11.3



Optics available



Order code	Chip	LED QTY	Lens Type	Power	Luminaire efficacy Up to(lm/W)	Lifespan L70/B10
225301	5050	24	6	40W	140	> 54,000hrs
225302	5050	36	6	60W	140	> 54,000hrs
225303	5050	36	6	80W	132	> 54,000hrs
225304	5050	54	6	100W	135	> 54,000hrs
225305	3535	24	6	40W	123	> 108,000hrs
225306	3535	36	6	60W	123	> 108,000hrs
225307	3535	36	6	80W	115	> 108,000hrs
225308	3535	54	6	100W	120	> 108,000hrs
225309	3030	56	14	40W	113	> 54,000hrs
225310	3030	84	14	60W	113	> 54,000hrs
225311	3030	126	14	80W	116	> 54,000hrs
225312	3030	126	14	100W	109	> 54,000hrs

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

ONE SIZE

TL-LED25A

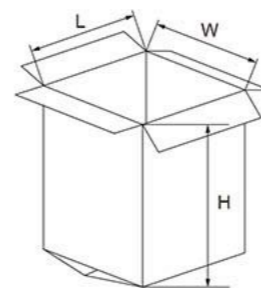


Technical information

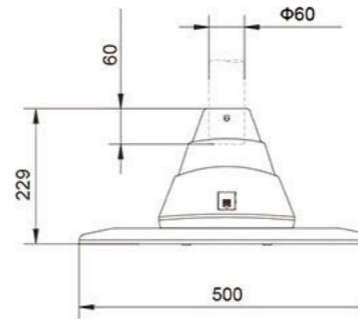
Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70, Ta 25°C	Driver isolation	Class I or Class II
Wattags	40~100W	Control dimming	DALI / 1-10V / Timing / PWM
Light efficacy	Up to 152lm/W	Operating temperature	-35°C~50°C / 10% ~ 95% (humidity)
CRI	≥ 70 or ≥ 80	Body parts material	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-LED25A	515*460*270mm	1	10.0	11.3



Optics available



Order code	Chip	LED QTY	Lens Type	Power	Luminaire efficacy Up to(lm/W)	Lifespan L70/B10
225201	5050	24	6	40W	152	> 54,000hrs
225202	5050	36	6	60W	152	> 54,000hrs
225203	5050	36	6	80W	143	> 54,000hrs
225204	5050	54	6	100W	149	> 54,000hrs
225205	3535	24	6	40W	133	> 108,000hrs
225206	3535	36	6	60W	133	> 108,000hrs
225207	3535	36	6	80W	124	> 108,000hrs
225208	3535	54	6	100W	131	> 108,000hrs
225209	3030	56	14	40W	122	> 54,000hrs
225210	3030	84	14	60W	122	> 54,000hrs
225211	3030	126	14	80W	124	> 54,000hrs
225212	3030	126	14	100W	117	> 54,000hrs

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

ONE SIZE

TL-LED25H

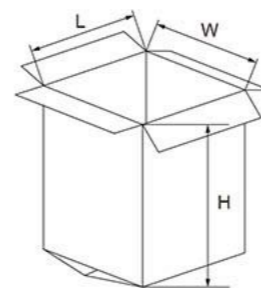


Technical information

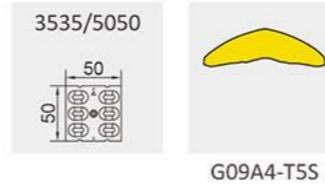
Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70, Ta 25°C	Driver isolation	Class I or Class II
Wattags	40~100W	Control dimming	DALI / 1-10V / Timing / PWM
Light efficacy	Up to 152lm/W	Operating temperature	-35°C~50°C / 10%~95% (humidity)
CRI	≥ 70 or ≥ 80	Body parts material	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-LED25H	515*460*220mm	1	10.0	11.3



Optics available

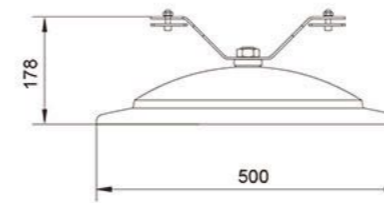


G09A4-T5S



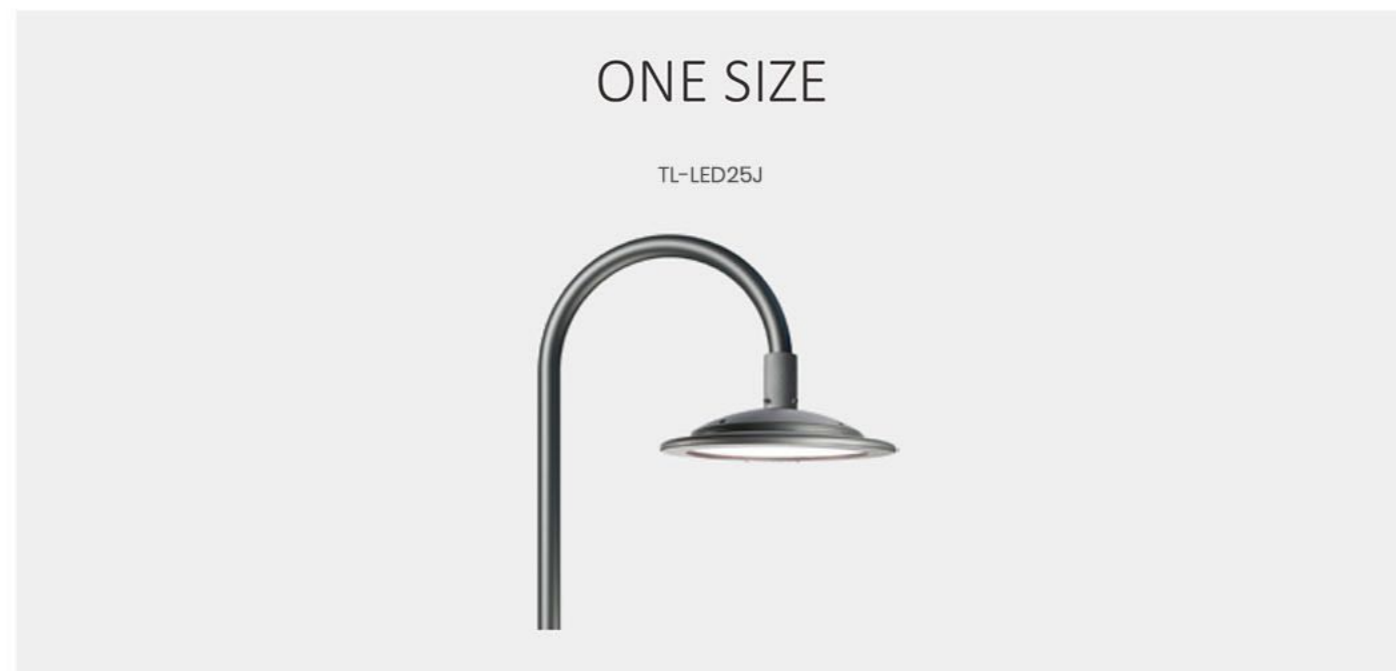
G10A14-T4S

G08A4-T5



Order code	Chip	LED QTY	Lens Type	Power	Luminaire efficacy Up to(lm/W)	Lifespan L70/B10
225401	5050	24	6	40W	152	> 54,000hrs
225402	5050	36	6	60W	152	> 54,000hrs
225403	5050	36	6	80W	143	> 54,000hrs
225404	5050	54	6	100W	149	> 54,000hrs
225405	3535	24	6	40W	133	> 108,000hrs
225406	3535	36	6	60W	133	> 108,000hrs
225407	3535	36	6	80W	124	> 108,000hrs
225408	3535	54	6	100W	131	> 108,000hrs
225409	3030	56	14	40W	122	> 54,000hrs
225410	3030	84	14	60W	122	> 54,000hrs
225411	3030	126	14	80W	124	> 54,000hrs
225412	3030	126	14	100W	117	> 54,000hrs

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

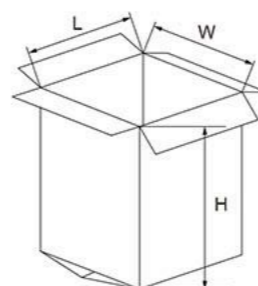


Technical information

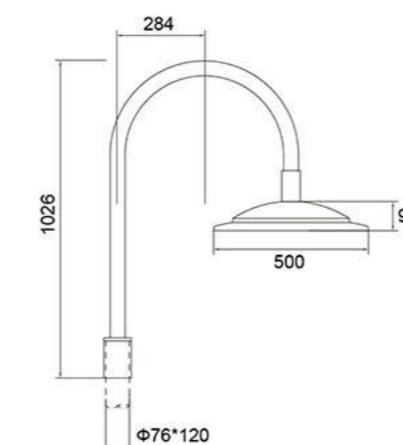
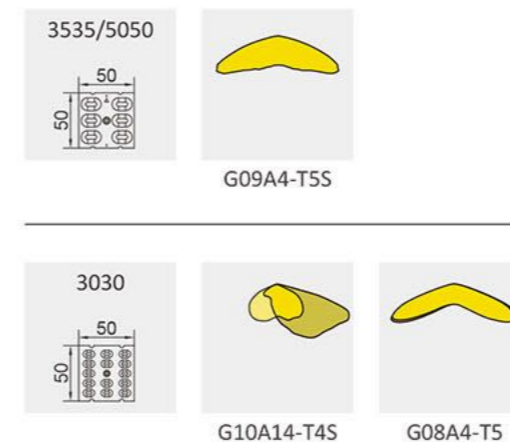
Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70, Ta 25°C	Driver isolation	Class I or Class II
Wattags	40~100W	Control dimming	DALI / 1-10V / Timing / PWM
Light efficacy	Up to 152lm/W	Operating temperature	-35°C~50°C / 10%~95% (humidity)
CRI	≥ 70 or ≥ 80	Body parts material	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-LED25J	515*460*220mm	1	10.0	11.3



Optics available



Order code	Chip	LED QTY	Lens Type	Power	Luminaire efficacy Up to(lm/W)	Lifespan L70/B10
225501	5050	24	6	40W	152	> 54,000hrs
225502	5050	36	6	60W	152	> 54,000hrs
225503	5050	36	6	80W	143	> 54,000hrs
225504	5050	54	6	100W	149	> 54,000hrs
225505	3535	24	6	40W	133	> 108,000hrs
225506	3535	36	6	60W	133	> 108,000hrs
225507	3535	36	6	80W	124	> 108,000hrs
225508	3535	54	6	100W	131	> 108,000hrs
225509	3030	56	14	40W	122	> 54,000hrs
225510	3030	84	14	60W	122	> 54,000hrs
225511	3030	126	14	80W	124	> 54,000hrs
225512	3030	126	14	100W	117	> 54,000hrs

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

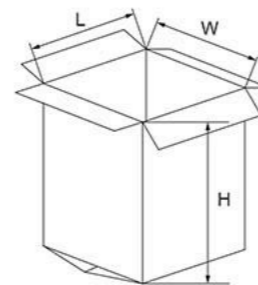


Technical information

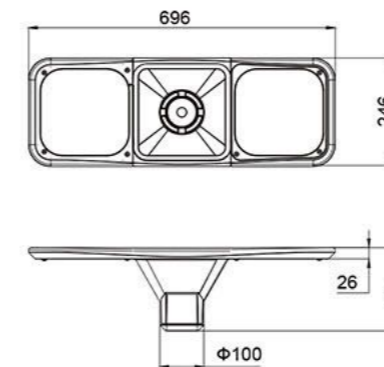
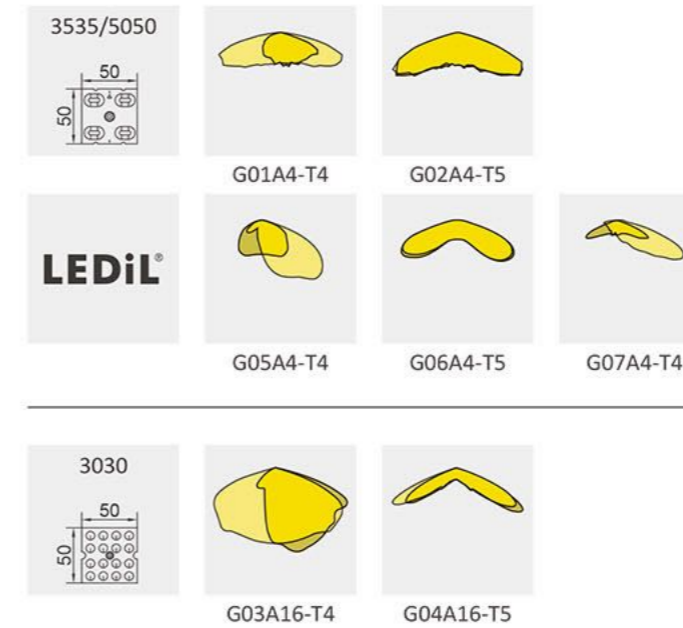
Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70,Ta 25°C	Driver isolation	Class I or Class II
Wattags	40~100W	Control dimming	DALI / 1-10V / Timing / PWM
Light efficacy	Up to 130lm/W	Operating temperature	-35°C~50°C / 10% ~ 95% (humidity)
CRI	≥ 70 or ≥ 80	Body parts material	Die cast Aluminum
Color temperature	3000K, 4000K, Amber color	Optic	PC (standard) / PMMA (option)
Operation voltage	AC 90-305V or AC 220-240V	Screen	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-LED30	710*265*215mm	1	10.0	11.3



Optics available



Order code	Chip	LED QTY	Lens Type	Power	Luminaire efficacy Up to(lm/W)	Lifespan L70/B10
230101	5050	16	4	40W	130	> 54,000hrs
230102	5050	36	4	60W	130	> 54,000hrs
230103	5050	48	4	100W	130	> 54,000hrs
230104	3030	64	16	40W	120	> 108,000hrs
230105	3030	144	16	60W	120	> 108,000hrs
230106	3030	192	16	100W	120	> 108,000hrs

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

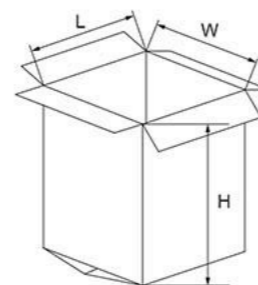


Technical information

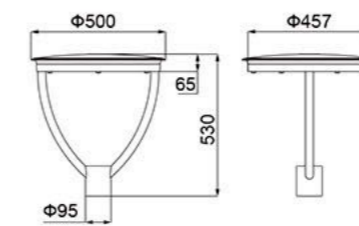
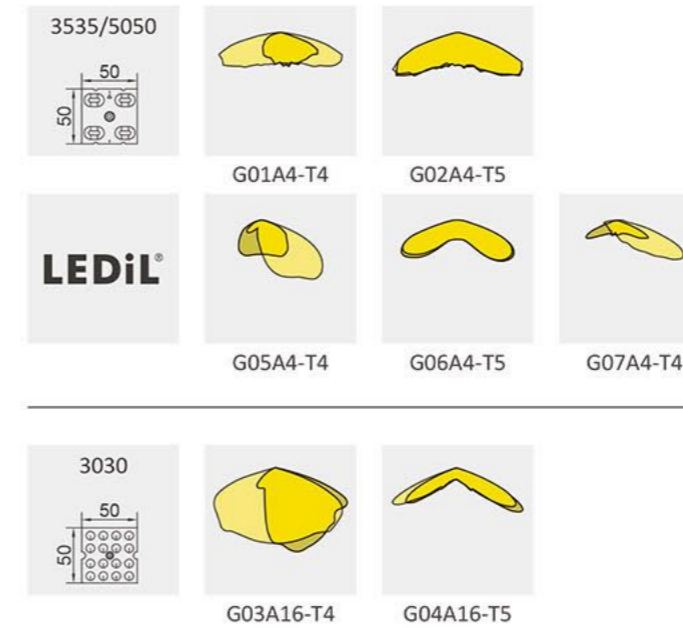
Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70, Ta 25°C	Driver isolation	Class I or Class II
Wattags	40~100W	Control dimming	DALI / 1-10V / Timing / PWM
Light efficacy	Up to 130lm/W	Operating temperature	-35°C~50°C / 10% ~ 95% (humidity)
CRI	≥ 70 or ≥ 80	Body parts material	Die cast Aluminum
Color temperature	3000K, 4000K, Amber color	Optic	PC (standard) / PMMA (option)
Operation voltage	AC 90-305V or AC 220-240V	Screen	Flat tempered glass 5mm thickness
Frequency	50 / 60Hz	Gasket	Silicone
Power factor	≥0.95 cos	Color stability	3 or 5 MacAdam steps

Packing Information

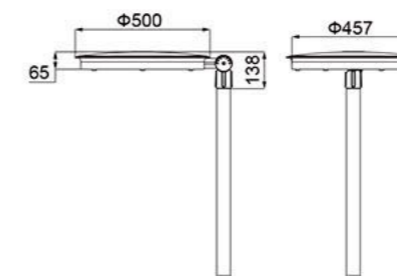
Model	Carton Size(L*W*H)	QTY/Carton	N.W.(kg)	G.W.(kg)
TL-LED31A	510*480*565mm	1	10.0	11.3
TL-LED31B	510*485*165mm	1	10.0	11.3



Optics available



HYT-LED31A



HYT-LED31B

Order code	Chip	LED QTY	Lens Type	Power	Luminaire efficacy Up to(lm/W)	Lifespan L70/B10
231101	5050	16	4	40W	130	> 54,000hrs
231102	5050	36	4	60W	130	> 54,000hrs
231103	5050	48	4	100W	130	> 54,000hrs
231104	3030	64	16	40W	120	> 108,000hrs
231105	3030	144	16	60W	120	> 108,000hrs
231106	3030	192	16	100W	120	> 108,000hrs

Order code	Chip	LED QTY	Lens Type	Power	Luminaire efficacy Up to(lm/W)	Lifespan L70/B10
231201	5050	16	4	40W	130	> 54,000hrs
231202	5050	36	4	60W	130	> 54,000hrs
231203	5050	48	4	100W	130	> 54,000hrs
231204	3030	64	16	40W	120	> 108,000hrs
231205	3030	144	16	60W	120	> 108,000hrs
231206	3030	192	16	100W	120	> 108,000hrs

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

GARDEN LIGHT



Jade
TL-LED22



Ruby
TL-LED23A



Conico
TL-LED02



Regina
TL-LED98



Clone
TL-LED28

ONE SIZE

TL-LED22



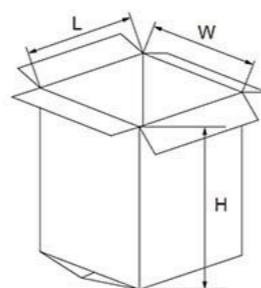
CE CB

Technical information

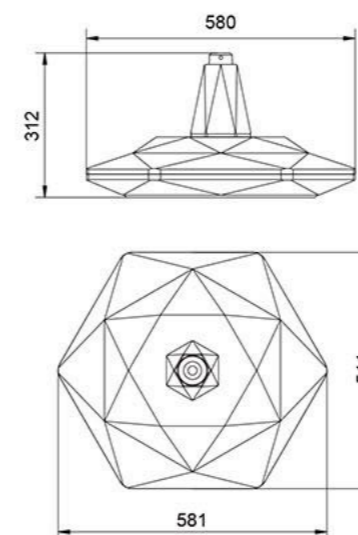
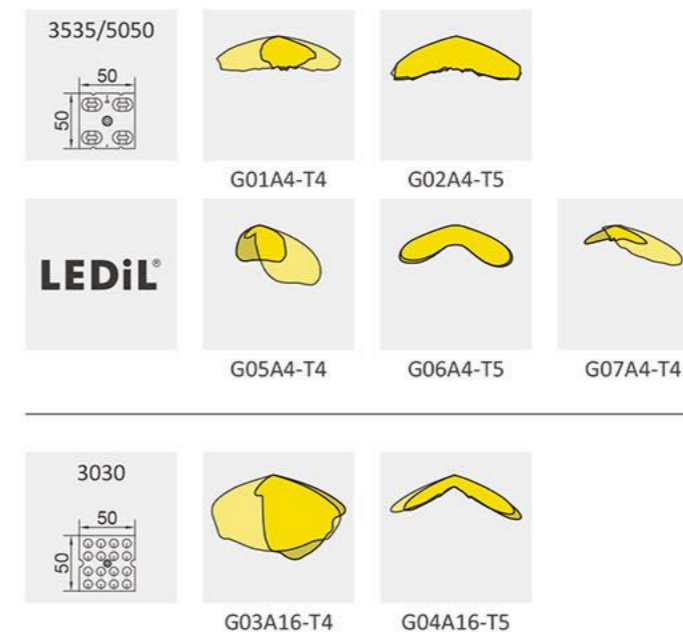
Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70, Ta 25°C	Driver isolation	Class I or Class II
Wattags	40~100W	Control dimming	DALI / 1-10V / Timing / PWM
Light efficacy	Up to 140lm/W	Operating temperature	-35°C~50°C / 10% ~ 95% (humidity)
CRI	≥ 70 or ≥ 80	Body parts material	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-LED22	600*530*340mm	1	10.0	11.3



Optics available



Order code	Chip	LED QTY	Lens Type	Power	Luminaire efficacy Up to(lm/W)	Lifespan L70/B10
222101	5050	16	4	40W	140	> 54,000hrs
222102	5050	24	4	60W	140	> 54,000hrs
222103	5050	24	4	80W	133	> 54,000hrs
222104	5050	36	4	100W	137	> 54,000hrs
222105	3535	16	4	40W	130	> 108,000hrs
222106	3535	24	4	60W	130	> 108,000hrs
222107	3535	24	4	80W	121	> 108,000hrs
222108	3535	36	4	100W	118	> 108,000hrs
222109	3030	64	4	40W	128	> 54,000hrs
222110	3030	96	16	60W	128	> 54,000hrs
222111	3030	96	16	80W	121	> 54,000hrs
222112	3030	144	16	100W	123	> 54,000hrs

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

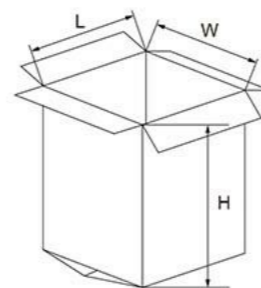


Technical information

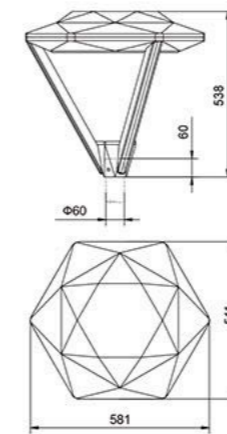
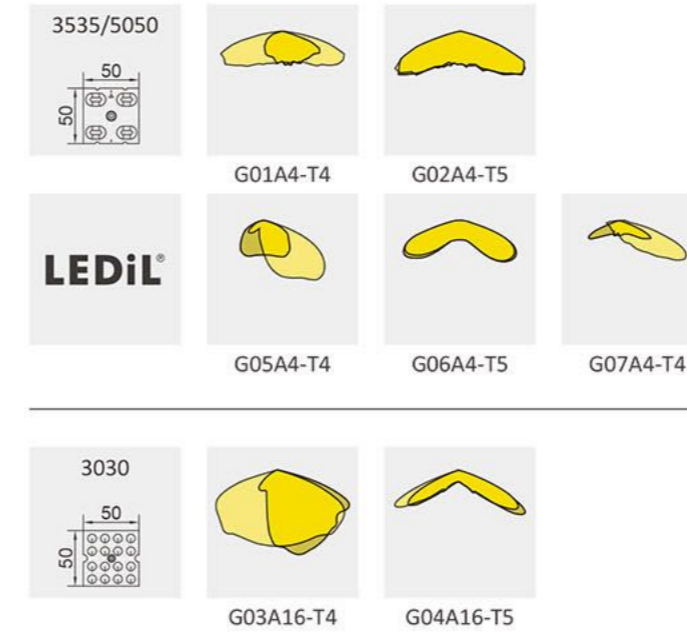
Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70, Ta 25°C	Driver isolation	Class I or Class II
Wattags	40~100W	Control dimming	DALI / 1-10V / Timing / PWM
Light efficacy	Up to 126lm/W	Operating temperature	-35°C~50°C / 10% ~ 95% (humidity)
CRI	≥ 70 or ≥ 80	Body parts material	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-LED23A	600*530*570mm	1	9.9	10.45



Optics available



Order code	Chip	LED QTY	Lens Type	Power	Luminaire efficacy Up to(lm/W)	Lifespan L70/B10
223101	5050	16	4	40W	126	> 54,000hrs
223102	5050	24	4	60W	126	> 54,000hrs
223103	5050	24	4	80W	120	> 54,000hrs
223104	5050	36	4	100W	123	> 54,000hrs
223105	3535	16	4	40W	101	> 108,000hrs
223106	3535	24	4	60W	101	> 108,000hrs
223107	3535	24	4	80W	109	> 108,000hrs
223108	3535	36	4	100W	91	> 108,000hrs
223109	3030	64	4	40W	99	> 54,000hrs
223110	3030	96	16	60W	99	> 54,000hrs
223111	3030	96	16	80W	94	> 54,000hrs
223112	3030	144	16	100W	95	> 54,000hrs

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

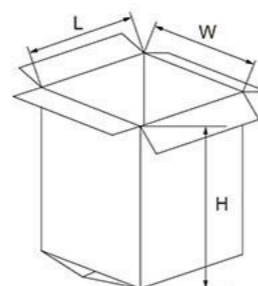


Technical information

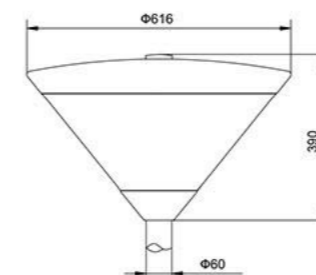
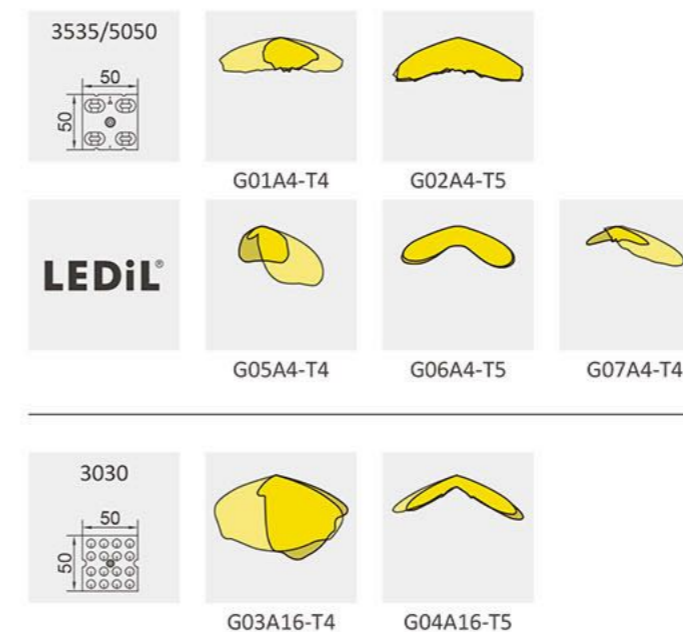
Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70,Ta 25°C	Driver isolation	Class I or Class II
Wattags	40~80W	Control dimming	DALI / 1-10V / Timing / PWM
Light efficacy	Up to 104lm/W	Operating temperature	-35°C~50°C / 10% ~ 95% (humidity)
CRI	≥ 70 or ≥ 80	Body parts material	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-LED02	625*625*400mm	1	10.0	11.3



Optics available



Order code	Chip	LED QTY	Lens Type	Power	Luminaire efficacy Up to(lm/W)	Lifespan L70/B10
202101	3030	64	64	40W	104	> 54,000hrs
202102	3030	128	64	80W	104	> 54,000hrs

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

TWO SIZE

TL-LED98S



TL-LED98

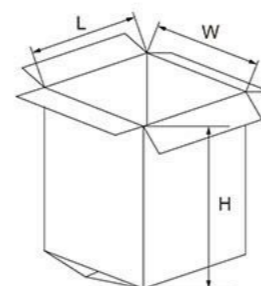


Technical information

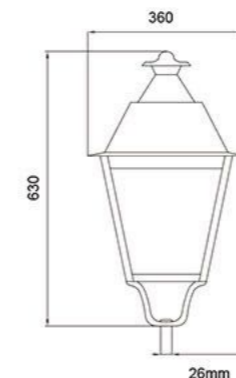
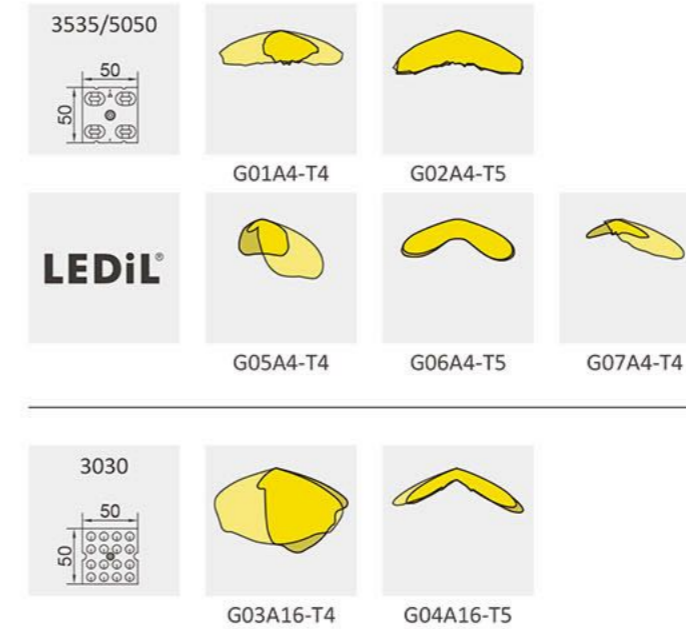
Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70, Ta 25°C	Driver isolation	Class I or Class II
Wattags	20~80W	Control dimming	DALI / 1-10V / Timing / PWM
Light efficacy	Up to 127lm/W	Operating temperature	-35°C~50°C / 10% ~ 95% (humidity)
CRI	≥ 70 or ≥ 80	Body parts material	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

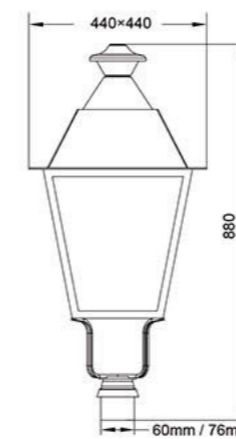
Model	Carton Size(L*W*H)	QTY/Carton	N.W.(kg)	G.W.(kg)
TL-LED98S	400*400*660mm	1	5.55	7.05
TL-LED98	510*510*930mm	1	10.06	11.56



Optics available



HYT-LED98S



HYT-LED98

Order code	Chip	LED QTY	Lens Type	Power	Luminaire efficacy Up to(lm/W)	Lifespan L70/B10
2098101	5050	8	4	20W	127	> 54,000hrs
2098102	5050	16	4	40W	127	> 54,000hrs
2098103	3535	8	4	20W	109	> 108,000hrs
2098104	3535	16	4	40W	109	> 108,000hrs
2098105	3030	32	16	20W	112	> 54,000hrs
2098106	3030	64	16	40W	112	> 54,000hrs

Order code	Chip	LED QTY	Lens Type	Power	Luminaire efficacy Up to(lm/W)	Lifespan L70/B10
2098201	5050	12	4	30W	127	> 54,000hrs
2098202	5050	24	4	60W	127	> 54,000hrs
2098203	5050	36	4	80W	129	> 54,000hrs
2098204	3535	12	4	30W	109	> 108,000hrs
2098205	3535	24	4	60W	109	> 108,000hrs
2098206	3535	36	4	80W	111	> 108,000hrs
2098207	3030	48	16	30W	112	> 54,000hrs
2098208	3030	96	16	60W	112	> 54,000hrs
2098209	3030	144	16	80W	115	> 54,000hrs

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

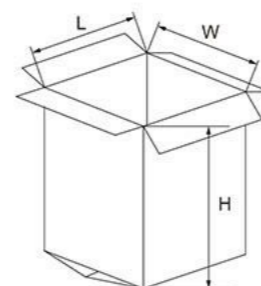


Technical information

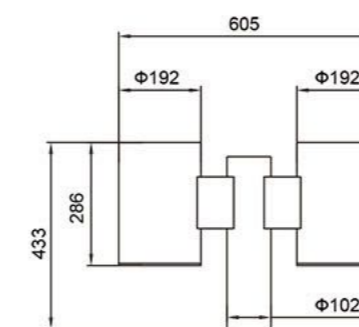
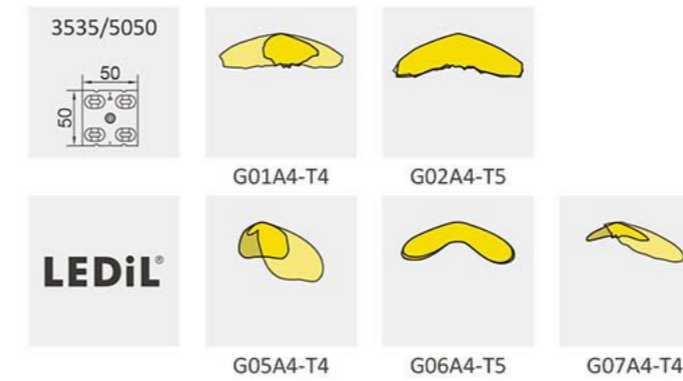
Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70,Ta 25°C	Driver isolation	Class I or Class II
Wattags	20~40W	Control dimming	DALI / 1-10V / Timing / PWM
Light efficacy	Up to 114lm/W	Operating temperature	-35°C~50°C / 10% ~ 95% (humidity)
CRI	≥ 70 or ≥ 80	Body parts material	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-LED28	365*495*190mm	1	10.0	11.3



Optics available



Order code	Chip	LED QTY	Lens Type	Power	Luminaire efficacy Up to(lm/W)	Lifespan L70/B10
228101	5050	16	4	20W	114	> 54,000hrs
228102	5050	24	4	40W	114	> 54,000hrs
228103	3535	16	4	20W	91	> 108,000hrs
228104	3535	24	4	40W	91	> 108,000hrs

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

GARDEN LIGHT



Cornet
TL-LED09B



Lakota
TL-LED10B



Casa
TL-LED10C



City
TL-LED96

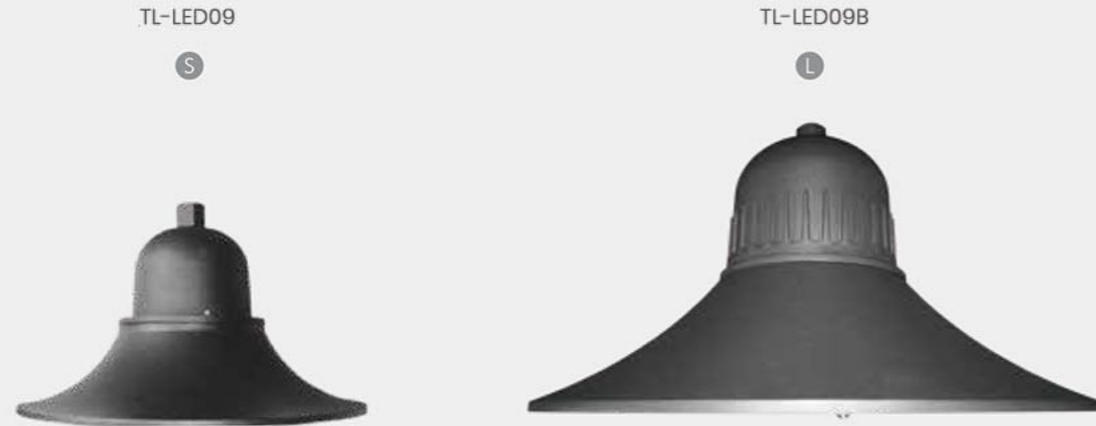


Tiara
TL-LED19



Beta
TL-LED19A

TWO SIZE

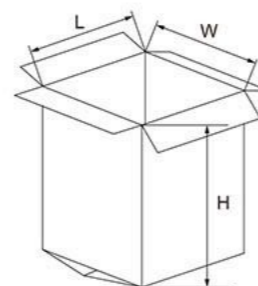


Technical information

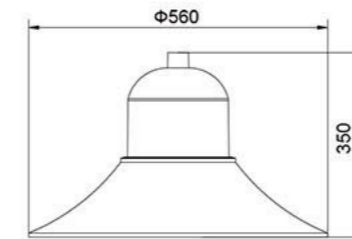
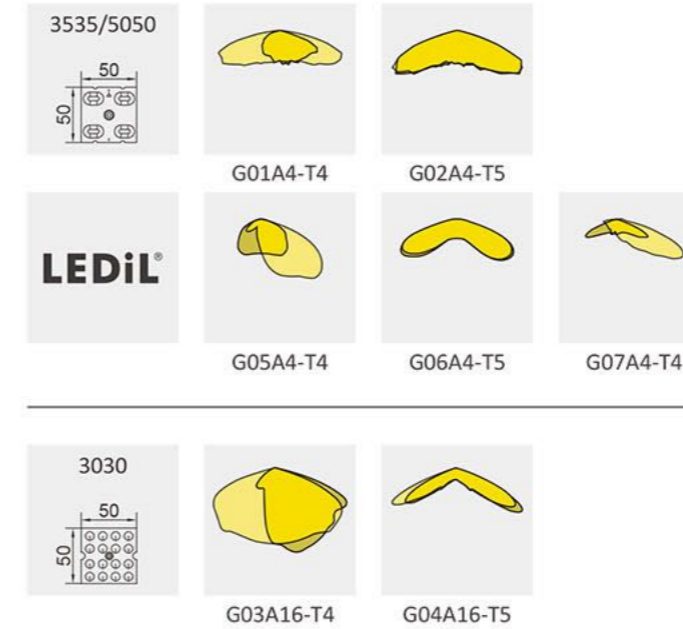
Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70, Ta 25°C	Driver isolation	Class I or Class II
Wattags	10~100W	Control dimming	DALI / 1-10V / Timing / PWM
Light efficacy	Up to 148lm/W	Operating temperature	-35°C~50°C / 10% ~ 95% (humidity)
CRI	≥ 70 or ≥ 80	Body parts material	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

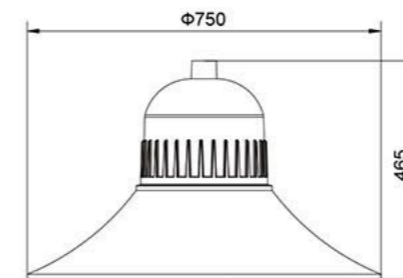
Model	Carton Size(L*W*H)	QTY/Carton	N.W.(kg)	G.W.(kg)
TL-LED09	575*575*445mm	1	5.55	7.05
TL-LED09B	755*755*535mm	1	10.06	11.56



Optics available



Bugle HYT-LED09



Bugle HYT-LED09B

Order code	Chip	LED QTY	Lens Type	Power	Luminaire efficacy Up to(lm/W)	Lifespan L70/B10
2098101	5050	8	4	10W	148	> 54,000hrs
2098102	5050	16	4	30W	142	> 54,000hrs
2098103	3535	8	4	10W	143	> 108,000hrs
2098104	3535	16	4	30W	138	> 108,000hrs
2098105	3030	32	16	20W	128	> 54,000hrs
2098106	3030	64	16	40W	128	> 54,000hrs

Order code	Chip	LED QTY	Lens Type	Power	Luminaire efficacy Up to(lm/W)	Lifespan L70/B10
2098201	5050	12	4	20W	127	> 54,000hrs
2098202	5050	24	4	40W	127	> 54,000hrs
2098203	5050	36	4	80W	129	> 54,000hrs
2098204	3535	12	4	20W	112	> 108,000hrs
2098205	3535	24	4	40W	112	> 108,000hrs
2098206	3535	36	4	80W	115	> 108,000hrs
2098207	3030	48	16	40W	121	> 54,000hrs
2098208	3030	96	16	60W	128	> 54,000hrs
2098209	3030	144	16	100W	123	> 54,000hrs

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

ONE SIZE

TL-LED10B



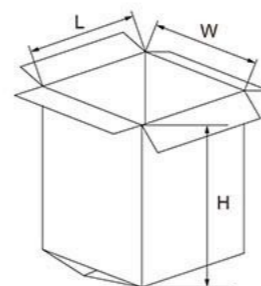
CE CB

Technical information

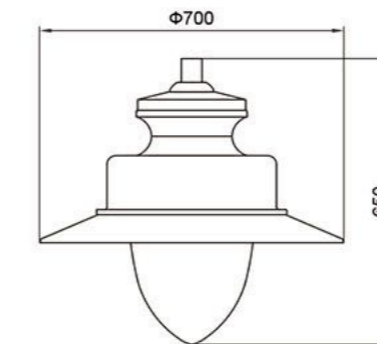
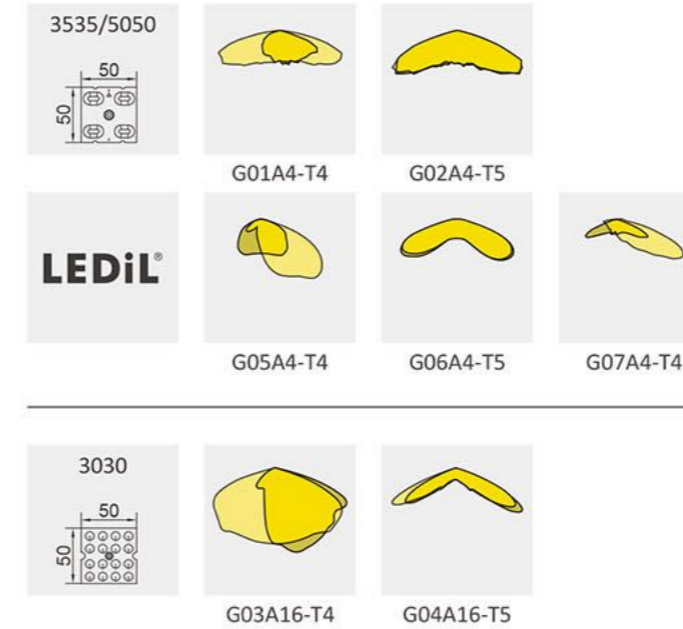
Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70, Ta 25°C	Driver isolation	Class I or Class II
Wattags	20~100W	Control dimming	DALI / 1-10V / Timing / PWM
Light efficacy	Up to 117lm/W	Operating temperature	-35°C~50°C / 10% ~ 95% (humidity)
CRI	≥ 70 or ≥ 80	Body parts material	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/Tempered glass
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-LED10B	750*750*690mm	1	10.0	11.3



Optics available



Order code	Chip	LED QTY	Lens Type	Power	Luminaire efficacy Up to(lm/W)	Lifespan L70/B10
210201	5050	12	4	20W	114	> 54,000hrs
210202	5050	24	4	40W	114	> 54,000hrs
210203	5050	36	4	80W	117	> 54,000hrs
210204	3535	12	4	20W	101	> 108,000hrs
210205	3535	24	4	40W	101	> 108,000hrs
210206	3535	36	4	80W	103	> 108,000hrs
210207	3030	48	16	40W	109	> 54,000hrs
210208	3030	96	16	60W	116	> 54,000hrs
210209	3030	144	16	100W	110	> 54,000hrs

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

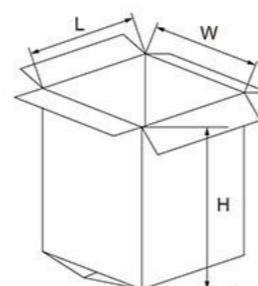


Technical information

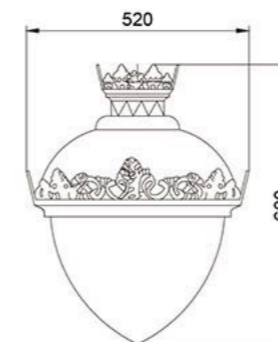
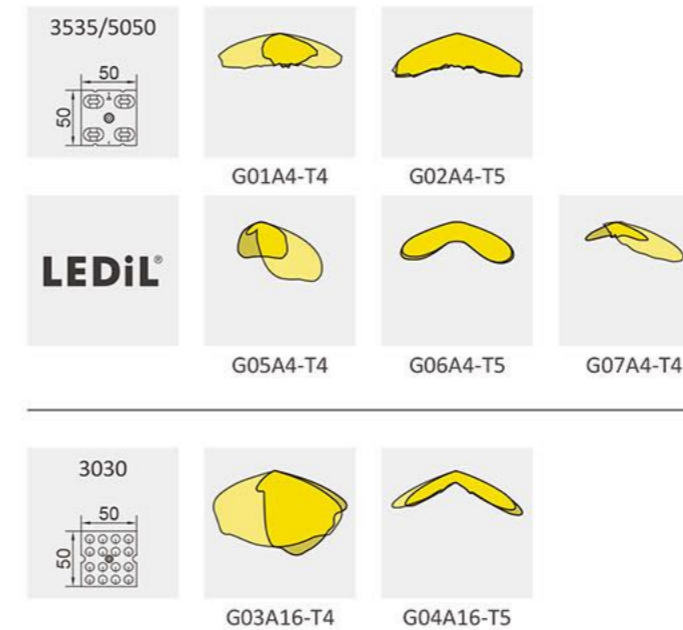
Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70, Ta 25°C	Driver isolation	Class I or Class II
Wattags	20~100W	Control dimming	DALI / 1-10V / Timing / PWM
Light efficacy	Up to 117lm/W	Operating temperature	-35°C~50°C / 10% ~ 95% (humidity)
CRI	≥ 70 or ≥ 80	Body parts material	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/Tempered glass
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-LED10C	550*550*650mm	1	10.0	11.3



Optics available



Order code	Chip	LED QTY	Lens Type	Power	Luminaire efficacy Up to(lm/W)	Lifespan L70/B10
210301	5050	12	4	20W	114	> 54,000hrs
210302	5050	24	4	40W	114	> 54,000hrs
210303	5050	36	4	80W	117	> 54,000hrs
210304	3535	12	4	20W	101	> 108,000hrs
210305	3535	24	4	40W	101	> 108,000hrs
210306	3535	36	4	80W	103	> 108,000hrs
210307	3030	48	16	40W	109	> 54,000hrs
210308	3030	96	16	60W	116	> 54,000hrs
210309	3030	144	16	100W	110	> 54,000hrs

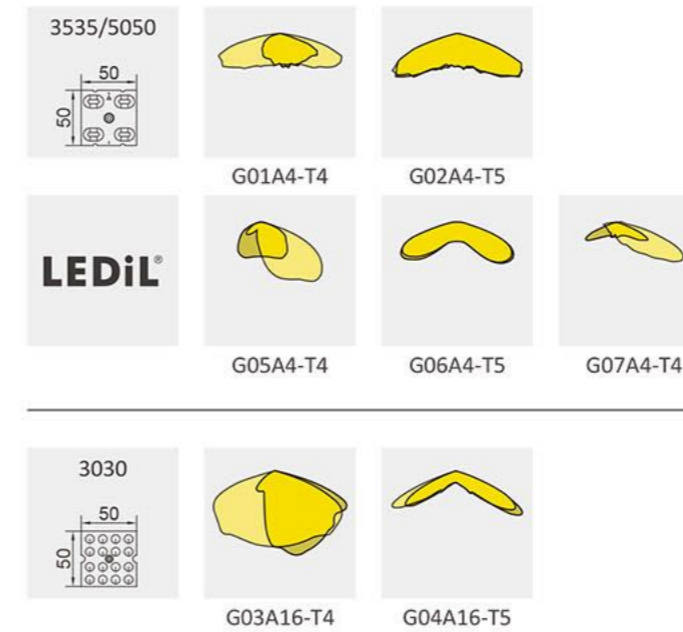
* 5050: LUMILEDS 5050; 3535: CREE XPG3; 3030: LUMILEDS 3030

ONE SIZE

TL-LED96



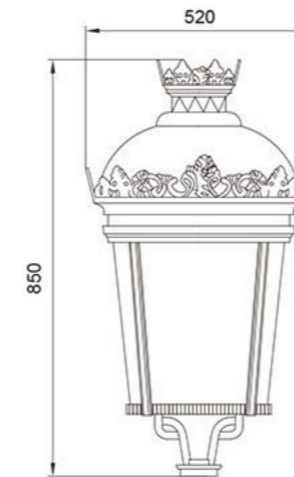
Optics available



CE 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	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	Cover	PC/Tempered glass
Frequency	50 / 60Hz	Gasket	Silicone
Power factor	≥0.95 cos	Color stability	3 or 5 MacAdam steps

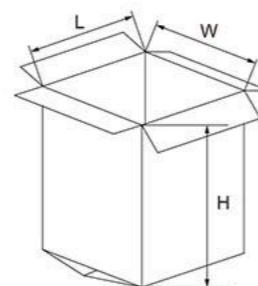


Order code	Chip	LED QTY	Lens Type	Power	Luminaire efficacy Up to(lm/W)	Lifespan L70/B10
2096101	5050	12	4	20W	105	> 54,000hrs
2096102	5050	24	4	40W	105	> 54,000hrs
2096103	5050	36	4	80W	105	> 54,000hrs
2096104	3535	12	4	20W	90	> 108,000hrs
2096105	3535	24	4	40W	90	> 108,000hrs
2096106	3535	36	4	80W	90	> 108,000hrs
2096107	3030	48	16	40W	95	> 54,000hrs
2096108	3030	96	16	60W	95	> 54,000hrs
2096109	3030	144	16	100W	95	> 54,000hrs

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

Packing Information

Model	Carton Size(L*W*H)	QTY/Carton	N.W.(kg)	G.W.(kg)
TL-LED96	540*540*890mm	1	10.0	11.3

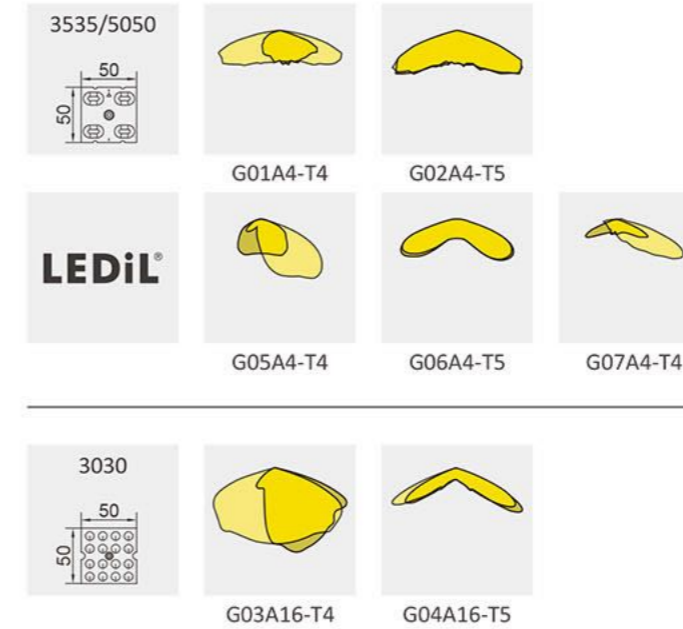


ONE SIZE

TL-LED19



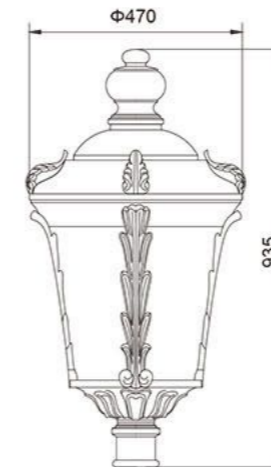
Optics available



CE 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	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/Tempered glass
Frequency	50 / 60Hz	Gasket	Silicone
Power factor	≥0.95 cos	Color stability	3 or 5 MacAdam steps

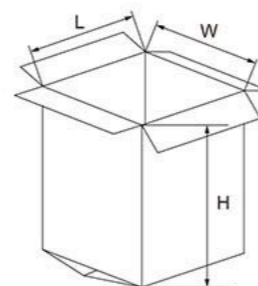


Order code	Chip	LED QTY	Lens Type	Power	Luminaire efficacy Up to(lm/W)	Lifespan L70/B10
219101	5050	12	4	20W	114	> 54,000hrs
219102	5050	24	4	40W	114	> 54,000hrs
219103	5050	36	4	80W	117	> 54,000hrs
219104	3535	12	4	20W	101	> 108,000hrs
219105	3535	24	4	40W	101	> 108,000hrs
219106	3535	36	4	80W	103	> 108,000hrs
219107	3030	48	16	40W	109	> 54,000hrs
219108	3030	96	16	60W	116	> 54,000hrs
219109	3030	144	16	100W	110	> 54,000hrs

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

Packing Information

Model	Carton Size(L*W*H)	QTY/Carton	N.W.(kg)	G.W.(kg)
TL-LED19	510*510*975mm	1	10.0	11.3



ONE SIZE

TL-LED19A



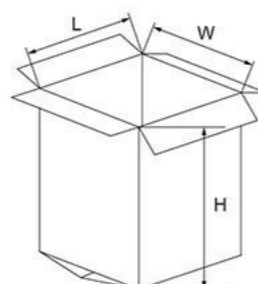
CE CB

Technical information

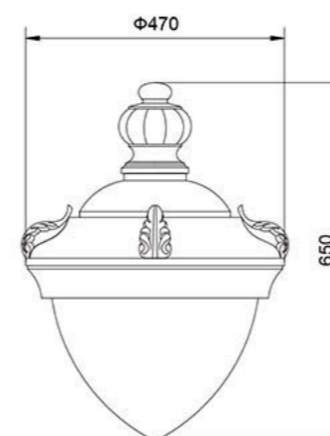
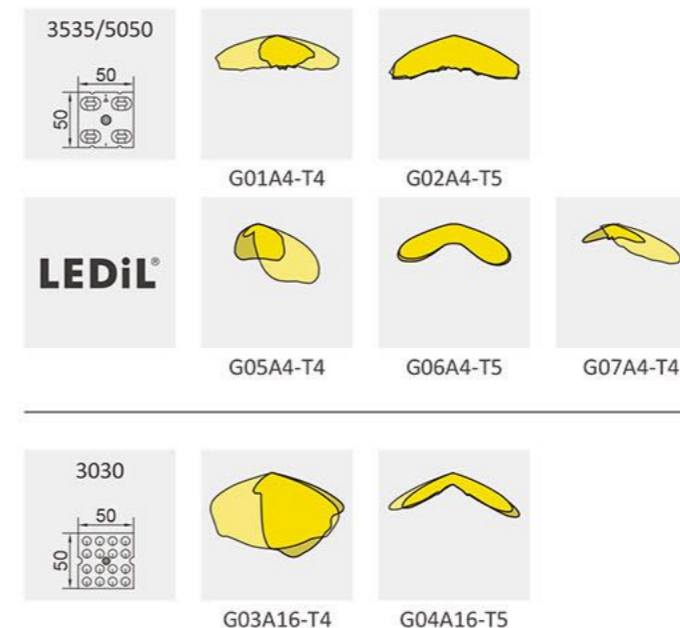
Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70, Ta 25°C	Driver isolation	Class I or Class II
Wattags	20~100W	Control dimming	DALI / 1-10V / Timing / PWM
Light efficacy	Up to 117lm/W	Operating temperature	-35°C~50°C / 10% ~ 95% (humidity)
CRI	≥ 70 or ≥ 80	Body parts material	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/Tempered glass
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-LED19A	495*495*690mm	1	10.0	11.3



Optics available



Order code	Chip	LED QTY	Lens Type	Power	Luminaire efficacy Up to(lm/W)	Lifespan L70/B10
219201	5050	12	4	20W	114	> 54,000hrs
219202	5050	24	4	40W	114	> 54,000hrs
219203	5050	36	4	80W	117	> 54,000hrs
219204	3535	12	4	20W	101	> 108,000hrs
219205	3535	24	4	40W	101	> 108,000hrs
219206	3535	36	4	80W	103	> 108,000hrs
219207	3030	48	16	40W	109	> 54,000hrs
219208	3030	96	16	60W	116	> 54,000hrs
219209	3030	144	16	100W	110	> 54,000hrs

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

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



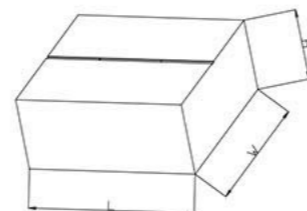


Technical information

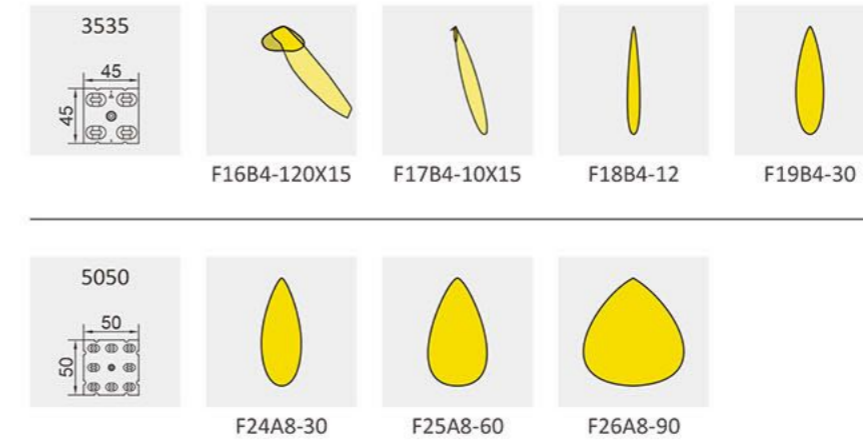
Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70, Ta 25 °C	Driver isolation	Class I or Class II
Wattags	100~1200W	Control dimming	DALI / 1-10V / Timing / PWM
Light efficacy	Up to 171lm/W	Operating temperature	-35°C~50°C / 10% ~ 95% (humidity)
CRI	≥ 70 or ≥ 80	Body parts 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-LED1000-S	420*380*245mm	1	10.0	11.3
M TL-LED1000-M	660*405*230mm	1	21.0	22.8
L TL-LED1000-L	760*730*290mm	1	43.0	45.0



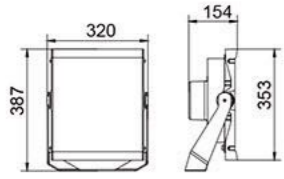
Optics available



Driver integrated

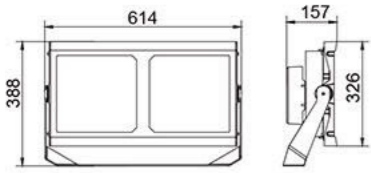


CODE



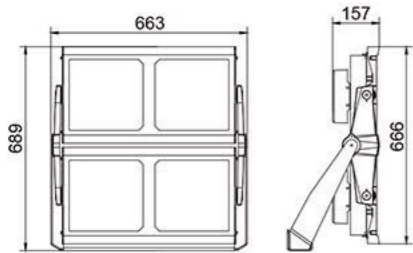
TL-LED1000S

Order code	Chip	LED QTY	Lens Type	Power	Luminaire efficacy Up to(lm/W)	Lifespan L70/B10
31000101	5050	126	8	100W	171	> 54,000hrs
31000102	5050	126	8	200W	161	> 54,000hrs
31000103	5050	126	8	300W	151	> 54,000hrs
31000104	3535	100	4	100W	147	> 108,000hrs
31000105	3535	100	4	200W	135	> 108,000hrs
31000106	3535	100	4	300W	122	> 108,000hrs



TL-LED1000M

Order code	Chip	LED QTY	Lens Type	Power	Luminaire efficacy Up to(lm/W)	Lifespan L70/B10
31000201	5050	252	8	300W	162	> 54,000hrs
31000202	5050	252	8	400W	161	> 54,000hrs
31000203	5050	252	8	500W	155	> 54,000hrs
31000204	5050	252	8	600W	151	> 54,000hrs
31000205	3535	200	4	300W	140	> 108,000hrs
31000206	3535	200	4	400W	135	> 108,000hrs
31000207	3535	200	4	500W	128	> 108,000hrs
31000208	3535	200	4	600W	122	> 108,000hrs



TL-LED1000L

Order code	Chip	LED QTY	Lens Type	Power	Luminaire efficacy Up to(lm/W)	Lifespan L70/B10
31000301	5050	504	8	600W	162	> 54,000hrs
31000302	5050	504	8	800W	161	> 54,000hrs
31000303	5050	504	8	1000W	155	> 54,000hrs
31000304	5050	504	8	1200W	151	> 54,000hrs
31000305	3535	400	4	600W	140	> 108,000hrs
31000306	3535	400	4	800W	135	> 108,000hrs
31000307	3535	400	4	1000W	128	> 108,000hrs
31000308	3535	400	4	1200W	122	> 108,000hrs

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



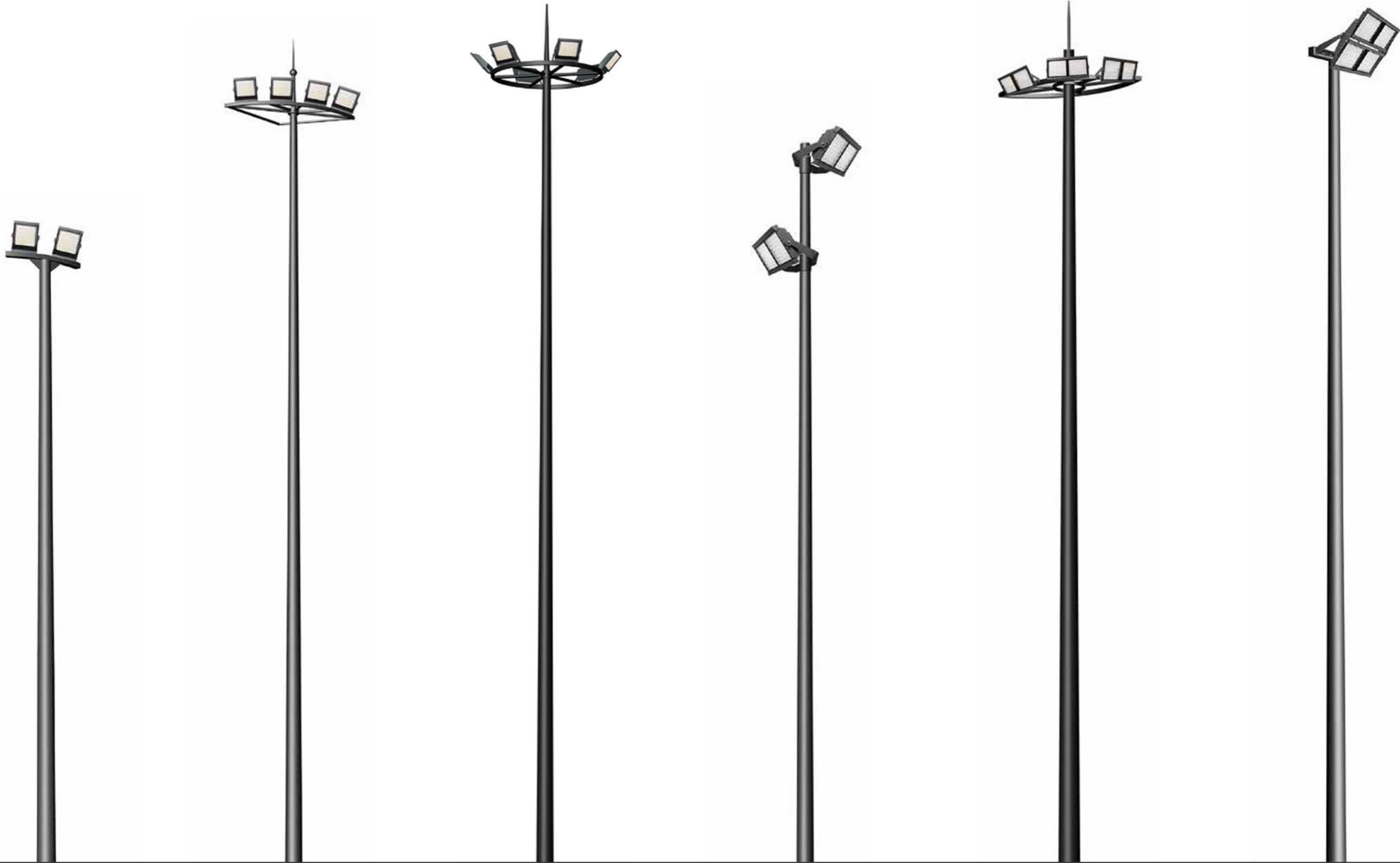
FLOOD LIGHT

25m

20m

15m

10m



Toro Series
TL-LED1000 Series

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



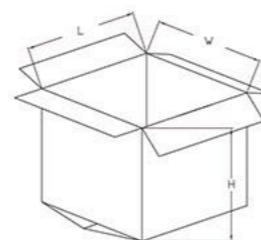


Technical information

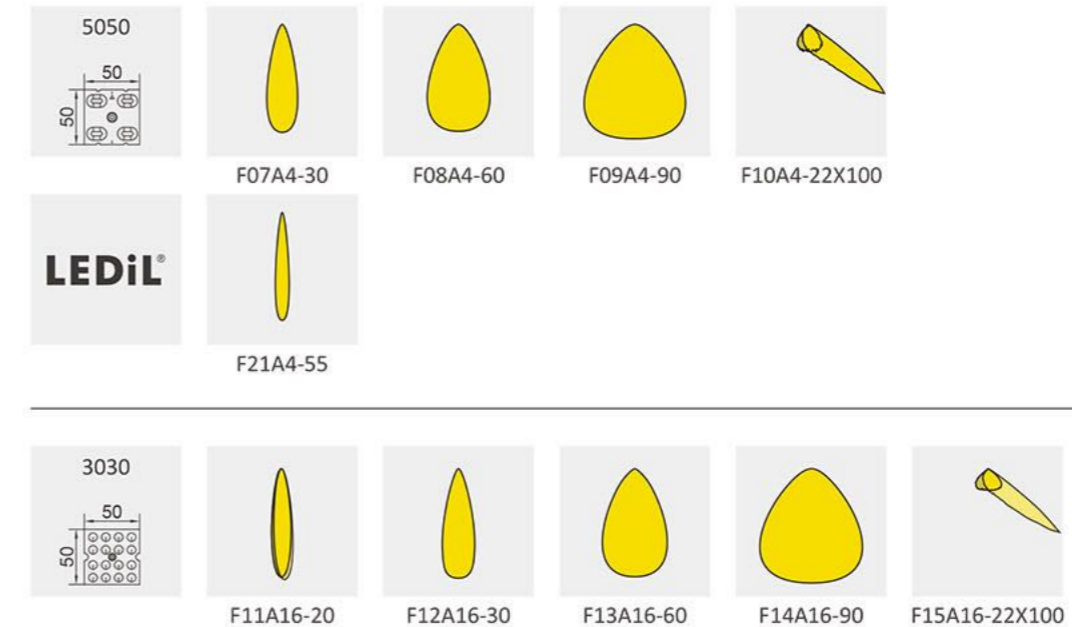
Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70, Ta 25 C	Driver isolation	Class I or Class II
Wattags	30~480W	Control dimming	DALI / 1-10V / Timing / PWM
Light efficacy	Up to 163lm/W	Operating temperature	-35°C~50°C / 10% ~ 95% (humidity)
CRI	≥ 70 or ≥ 80	Body parts material	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-LED600-XS	540*315*155mm	1	6.8	7.5
S TL-LED600-S	610*390*160mm	1	10.5	11.4
M TL-LED600-M	715*470*165mm	1	15.5	16.5



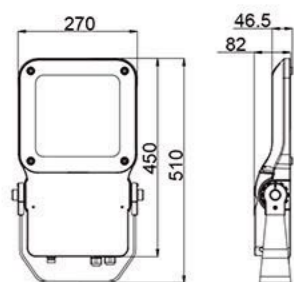
Optics available



Details

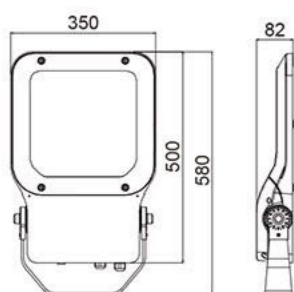


CODE



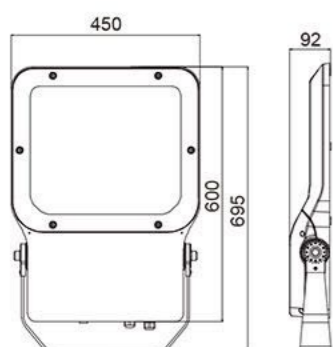
TL-LED600XS

Order code	Chip	LED QTY	Lens Type	Power	Luminaire efficacy Up to(lm/W)	Lifespan L70/B10
3600101	5050	12	4	30W	162	> 54,000hrs
3600102	5050	24	4	60W	162	> 54,000hrs
3600103	5050	36	4	100W	159	> 54,000hrs
3600104	3030	48	16	30W	158	> 54,000hrs
3600105	3030	96	16	60W	158	> 54,000hrs
3600106	3030	114	16	100W	146	> 54,000hrs



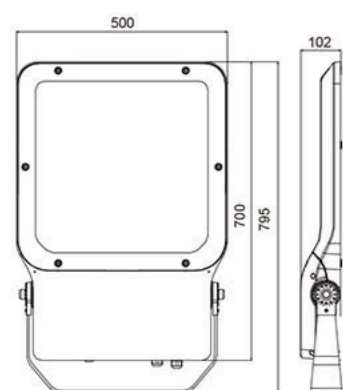
TL-LED600S

Order code	Chip	LED QTY	Lens Type	Power	Luminaire efficacy Up to(lm/W)	Lifespan L70/B10
3600201	5050	48	4	120W	162	> 54,000hrs
3600202	5050	64	4	150W	164	> 54,000hrs
3600203	3030	192	16	120W	158	> 54,000hrs
3600204	3030	256	16	150W	161	> 54,000hrs



TL-LED600M

Order code	Chip	LED QTY	Lens Type	Power	Luminaire efficacy Up to(lm/W)	Lifespan L70/B10
3600301	5050	80	4	200W	162	> 54,000hrs
3600302	5050	100	4	250W	162	> 54,000hrs
3600303	3030	120	16	200W	158	> 54,000hrs
3600304	3030	320	16	250W	158	> 54,000hrs



TL-LED600L

Order code	Chip	LED QTY	Lens Type	Power	Luminaire efficacy Up to(lm/W)	Lifespan L70/B10
3600401	5050	196	4	480W	163	> 54,000hrs

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

FLOOD LIGHT

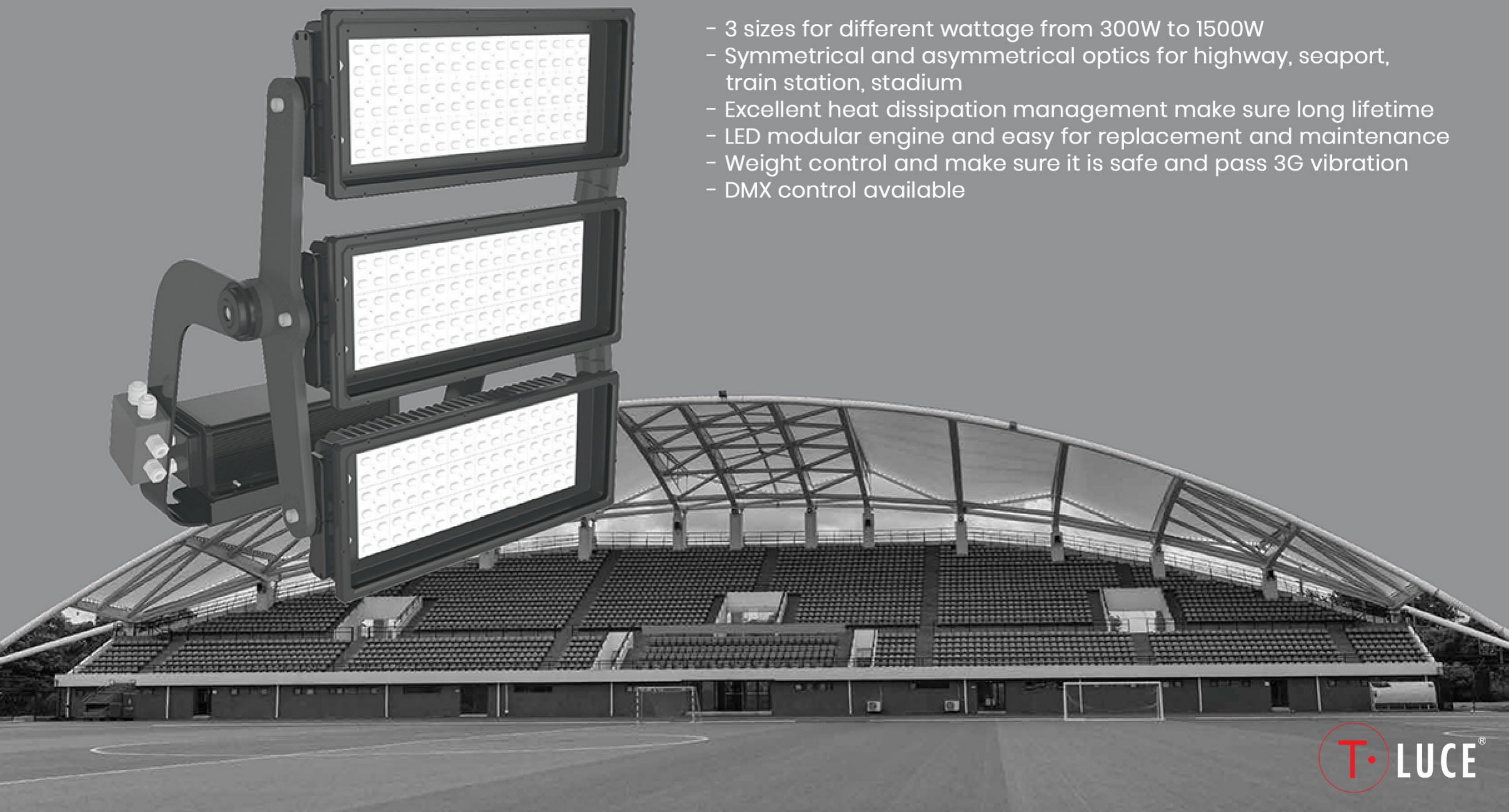


Cosmico Series
TL-LED600 Series

COMBO

COMBO has super performance can be maximum up to 1500W, which can cover most application area.

- 3 sizes for different wattage from 300W to 1500W
- Symmetrical and asymmetrical optics for highway, seaport, 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



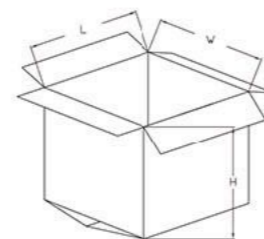


Technical information

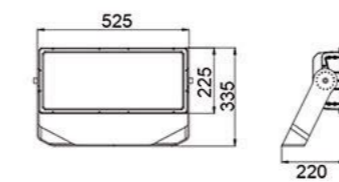
Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70, Ta 25 °C	Driver isolation	Class I or Class II
Wattags	300~1500W	Control dimming	DALI / 1-10V / Timing / PWM
Light efficacy	Up to 163lm/W	Operating temperature	-35°C~50°C / 10% ~ 95% (humidity)
CRI	≥ 70 or ≥ 80	Body parts 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

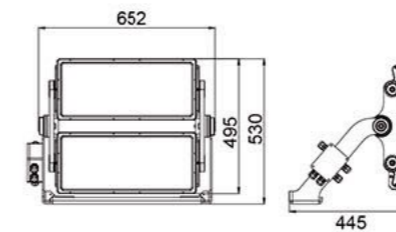
Model	Carton Size(L*W*H)	QTY/Carton	N.W.(kg)	G.W.(kg)
S TL-LED800-S	550*345*230mm	1	9.0	10.4
M TL-LED800-M	650*550*465mm	1	18.5	19.5
L TL-LED800-L	700*850*630mm	1	30.8	32.0



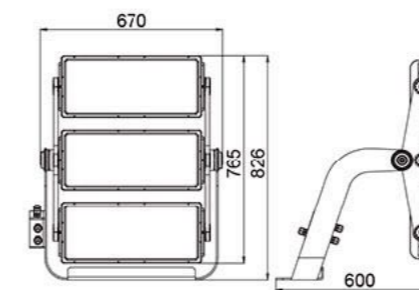
Optics available



Order code	Chip	LED QTY	Lens Type	Power	Luminaire efficacy Up to(lm/W)	Lifespan L70/B10
3800101	5050	192	8	300W	162	> 100,000hrs
3800102	5050	192	8	400W	153	> 100,000hrs
3800102	5050	192	8	500W	145	> 100,000hrs



Order code	Chip	LED QTY	Lens Type	Power	Luminaire efficacy Up to(lm/W)	Lifespan L70/B10
3800201	5050	384	8	600W	162	> 100,000hrs
3800202	5050	384	8	800W	153	> 100,000hrs
3800202	5050	384	8	1000W	145	> 100,000hrs



Order code	Chip	LED QTY	Lens Type	Power	Luminaire efficacy Up to(lm/W)	Lifespan L70/B10
3800301	5050	576	8	900W	162	> 100,000hrs
3800302	5050	576	8	1200W	153	> 100,000hrs
3800303	5050	576	8	1500W	145	> 100,000hrs

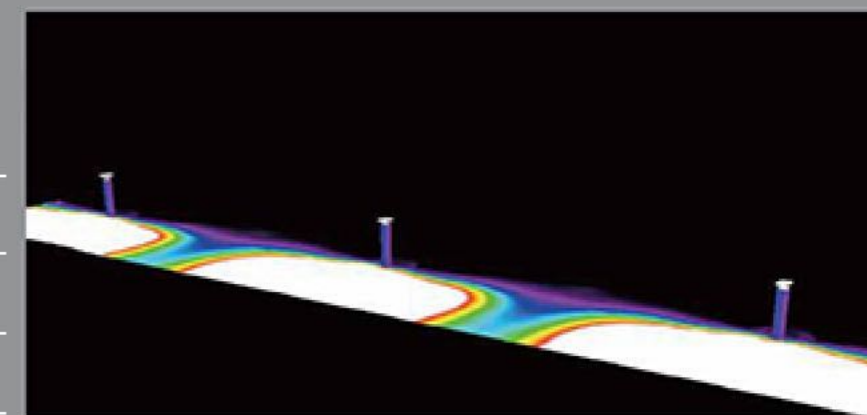


Example lighting levels

Typical result at 10m spacing, on a 4m wide path - designed to achieve P lighting classes

Lighting Class P3

Path Width	4m
Eav	7.50 - 11.25lx
Emin	1.5lx



BOLLARD LIGHT



Polus
TL-2008



Polus
TL-2008S



Juzibot
TL-2009



Juzibot
TL-2009S



Saga
TL-2000



Kleio
TL-2001S



Kleio
TL-2001D

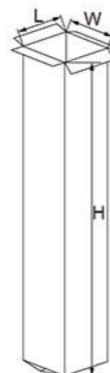


Technical information

Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70,Ta 25°C	Driver isolation	Class I or Class II
Wattags	12~40W	Control dimming	DALI / 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	Die cast Aluminum
Color temperature	3000K, 4000K, Amber color	Optic	PC (standard) / PMMA (option)
Operation voltage	AC 100-240V 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-LED2008	120*120*950mm	1	10.0	11.3



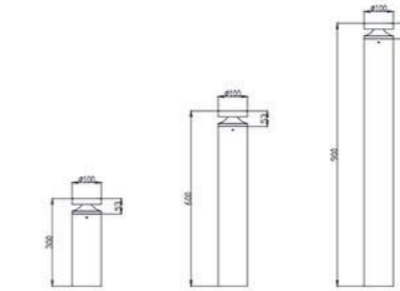
Optics available



Other option

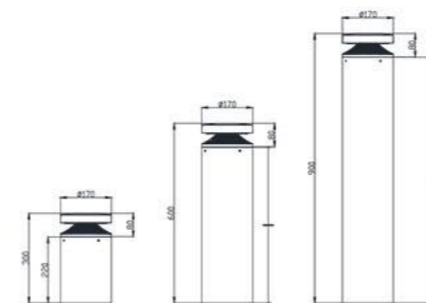


Order code	Chip	LED QTY	Lens Type	Power	Luminaire efficacy Up to(lm/W)	Lifespan L70/B10
52008101	3030	12	12	12W	110	> 54,000hrs
52008102	3030	24	24	25W	110	> 54,000hrs



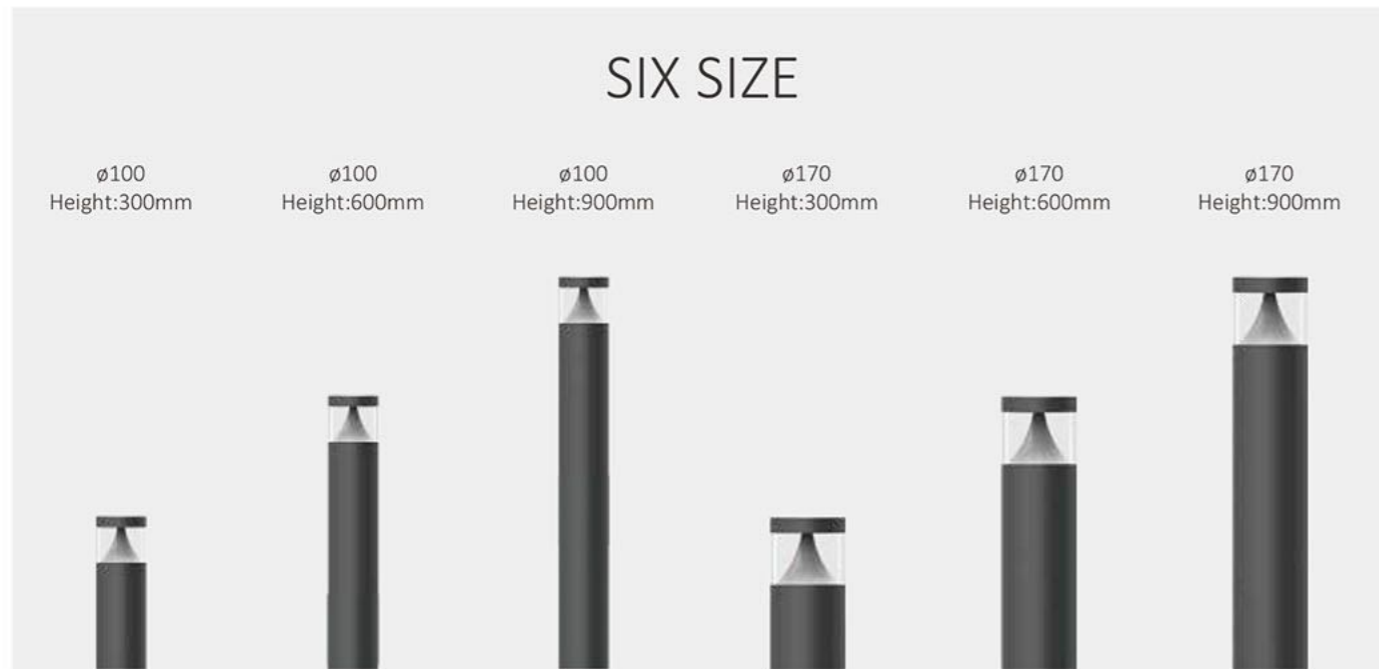
TL-2008S

Order code	Chip	LED QTY	Lens Type	Power	Luminaire efficacy Up to(lm/W)	Lifespan L70/B10
52008101	3030	12	12	12W	110	> 54,000hrs
52008102	3030	24	24	25W	110	> 54,000hrs
52008103	5050	36	36	40W	110	> 54,000hrs



TL-2008

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



Technical information

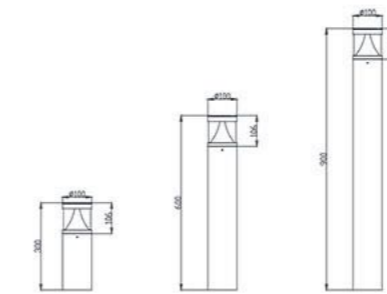
Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70, Ta 25 °C	Driver isolation	Class I or Class II
Wattags	12~40W	Control dimming	DALI / 1-10V / Timing / PWM
Light efficacy	Up to 110lm/W	Operating temperature	-35°C~50°C / 10%~95% (humidity)
CRI	≥ 70 or ≥ 80	Body parts material	Die cast Aluminum
Color temperature	3000K, 4000K, Amber color	Optic	PC (standard) / PMMA (option)
Operation voltage	AC 100-240V 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-LED2009	120*120*950mm	1	10.0	11.3

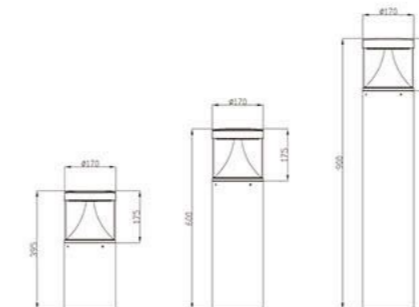


Optics available



TL-2009S

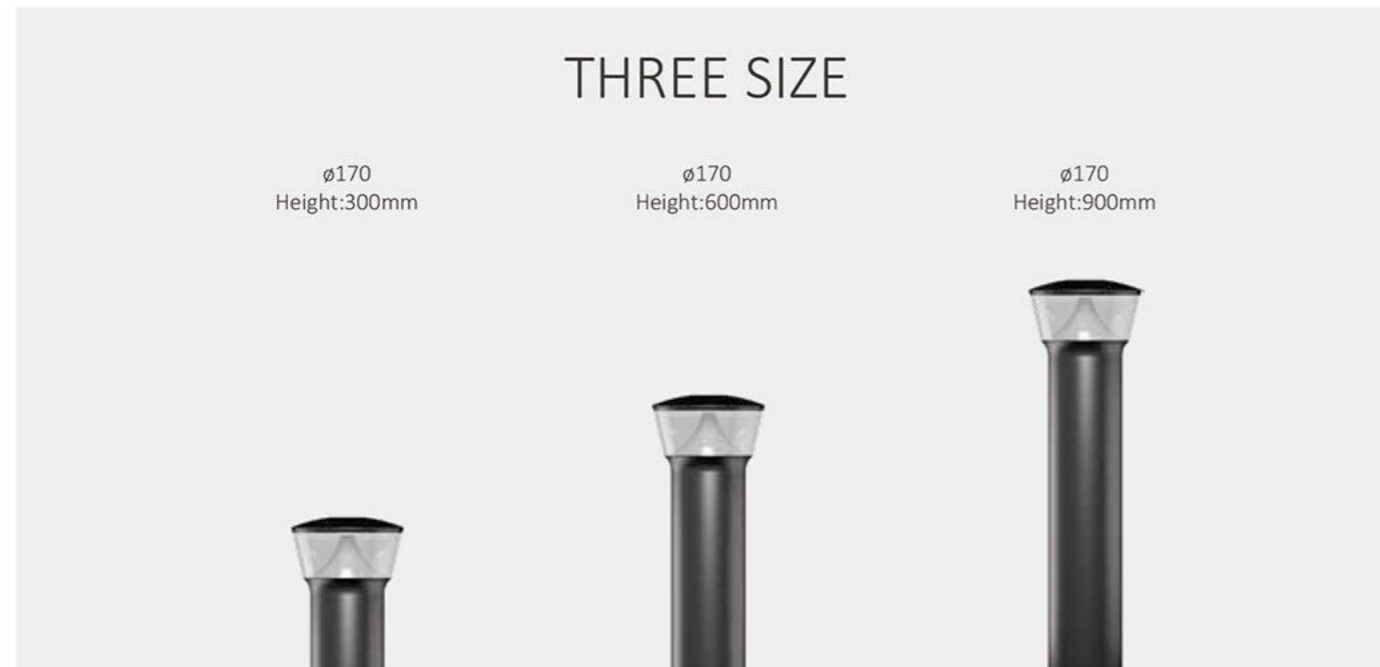
Order code	Chip	LED QTY	Lens Type	Power	Luminaire efficacy Up to(lm/W)	Lifespan L70/B10
52009101	3030	12	12	12W	110	> 54,000hrs
52009102	3030	24	24	25W	110	> 54,000hrs



TL-2009

Order code	Chip	LED QTY	Lens Type	Power	Luminaire efficacy Up to(lm/W)	Lifespan L70/B10
52009201	3030	12	12	12W	110	> 54,000hrs
52009202	3030	24	24	25W	110	> 54,000hrs
52009203	5050	36	36	40W	110	> 54,000hrs

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



Technical information

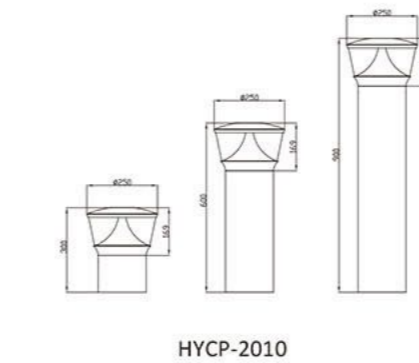
Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70,Ta 25 °C	Driver isolation	Class I or Class II
Wattags	12~40W	Control dimming	DALI / 1-10V / Timing / PWM
Light efficacy	Up to 110lm/W	Operating temperature	-35°C~50°C / 10%~95% (humidity)
CRI	≥ 70 or ≥ 80	Body parts material	Die cast Aluminum
Color temperature	3000K, 4000K, Amber color	Optic	PC (standard) / PMMA (option)
Operation voltage	AC 100-240V 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-LED2010-S	270*120*350mm	1	6.8	7.5
S TL-LED2010-M	270*120*650mm	1	10.5	11.4
M TL-LED2010-L	270*120*950mm	1	15.5	16.5

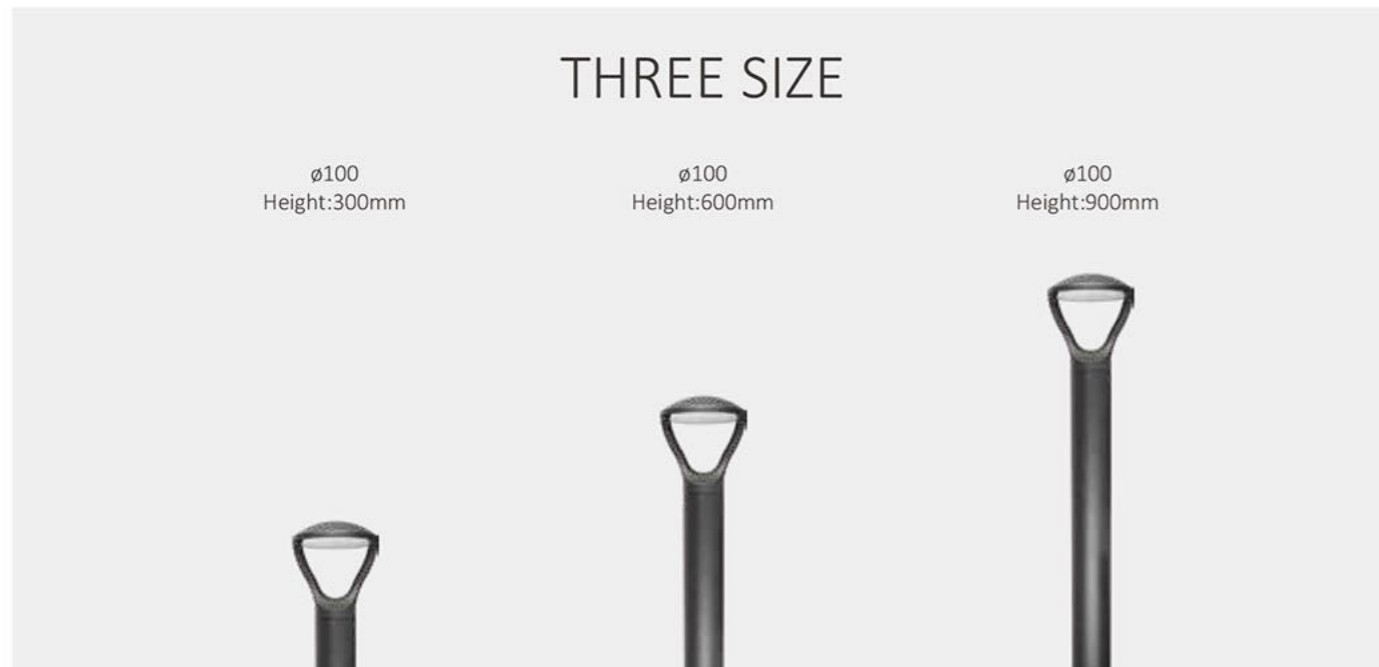


Optics available



Order code	Chip	LED QTY	Lens Type	Power	Luminaire efficacy Up to(lm/W)	Lifespan L70/B10
52010101	3030	12	12	12W	110	> 54,000hrs
52010102	3030	24	24	25W	110	> 54,000hrs
52010103	5050	36	36	40W	110	> 54,000hrs

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



THREE SIZE

ø100
Height:300mm

ø100
Height:600mm

ø100
Height:900mm

CE CB IP65 IK10

Technical information

Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70, Ta 25 °C	Driver isolation	Class I or Class II
Wattage	10~20W	Control dimming	DALI / 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	Die cast Aluminum
Color temperature	3000K, 4000K, Amber color	Optic	PC (standard) / PMMA (option)
Operation voltage	AC 100-240V 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

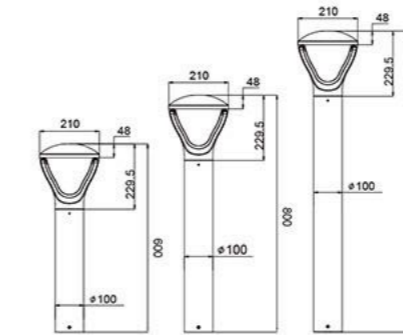
Model	Carton Size(L*W*H)	QTY/Carton	N.W.(kg)	G.W.(kg)
S TL-LED2000-S	220*200*307mm	1	8.0	9.2
M TL-LED2000-M	220*200*607mm	1	10.0	11.3
L TL-LED2010-L	220*200*907mm	1	21.0	22.8



Optics available



Other option



Order code	Chip	LED QTY	Lens Type	Power	Luminaire efficacy Up to(lm/W)	Lifespan L70/B10
52000101	5050	8	4	10W	110	> 54,000hrs
52000102	5050	16	4	20W	110	> 54,000hrs

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



Technical information

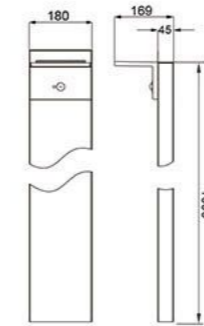
Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70,Ta 25 °C	Driver isolation	Class I or Class II
Wattags	10~40W	Control dimming	DALI / 1-10V / Timing / PWM
Light efficacy	Up to 110lm/W	Operating temperature	-35°C~50°C / 10% ~ 95% (humidity)
CRI	≥ 70 or ≥ 80	Body parts material	Die cast Aluminum
Color temperature	3000K, 4000K, Amber color	Optic	PC (standard) / PMMA (option)
Operation voltage	AC 100-240V 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

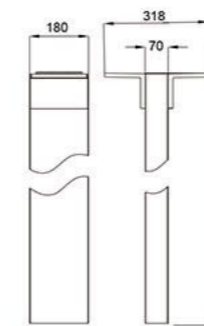
Model	Carton Size(L*W*H)	QTY/Carton	N.W.(kg)	G.W.(kg)
TL-LED2001-S	200*200*1100mm	1	10.0	11.3
TL-LED2001D	200*360*1100mm	1	10.0	11.3



Optics available



TL-LED2001S

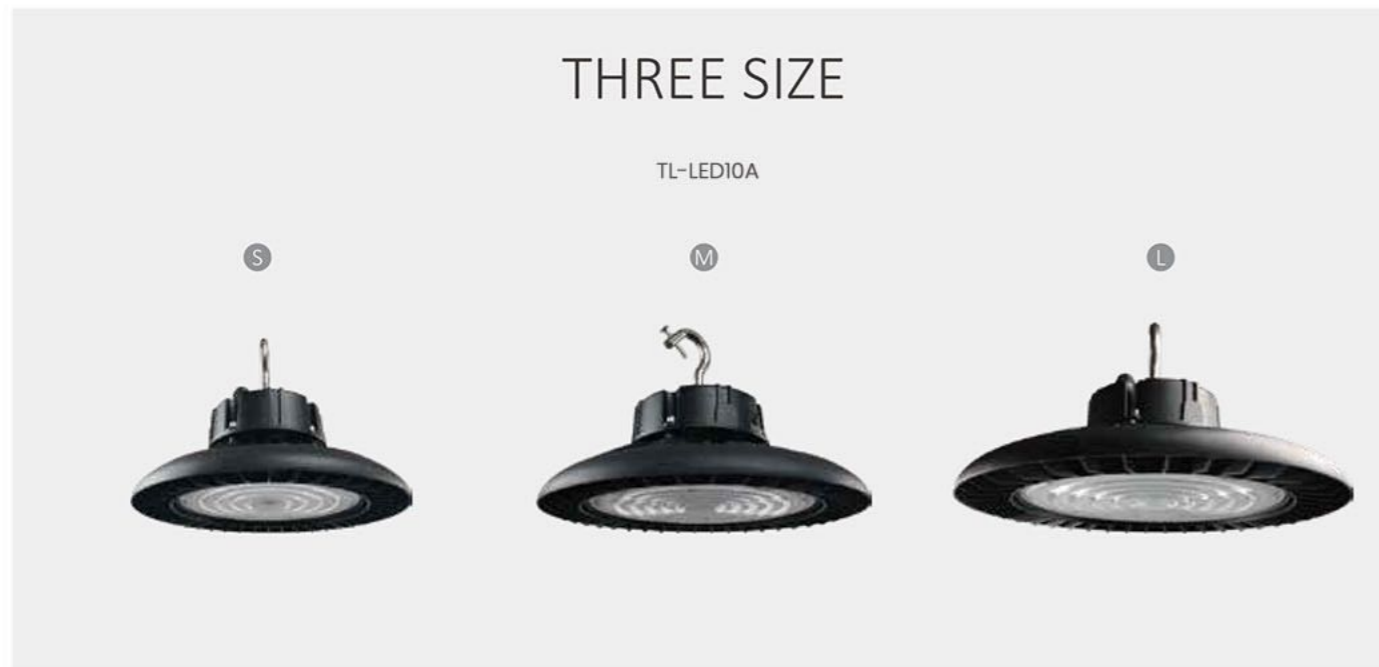


TL-LED2001D

Order code	Chip	LED QTY	Lens Type	Power	Luminaire efficacy Up to(lm/W)	Lifespan L70/B10
52001101	3030	12	4	10W	110	> 54,000hrs
52001102	3030	24	4	20W	110	> 54,000hrs

Order code	Chip	LED QTY	Lens Type	Power	Luminaire efficacy Up to(lm/W)	Lifespan L70/B10
52001201	3030	16	4	20W	110	> 54,000hrs
52001202	3030	32	4	40W	110	> 54,000hrs

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



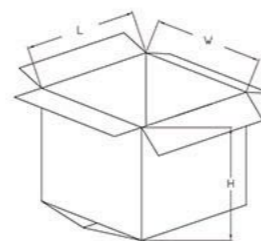
CE IP65 IK09

Technical information

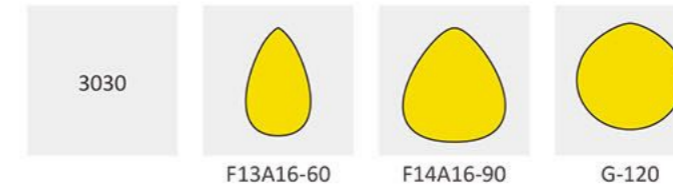
Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70, Ta 25 °C	Driver isolation	Class I or Class II
Wattags	100~200W	Control dimming	DALI / 1-10V / Timing / PWM
Light efficacy	Up to 120lm/W	Operating temperature	-35°C~50°C / 10% ~ 95% (humidity)
CRI	≥ 70 or ≥ 80	Body parts 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

Packing Information

Model	Carton Size(L*W*H)	QTY/Carton	N.W.(kg)	G.W.(kg)
S TL-LED10A-S	295*295*190mm	1	8.0	9.3
M TL-LED10A-M	365*365*190mm	1	14.0	15.8
L TL-LED10A-L	405*405*190mm	1	18.0	20.0



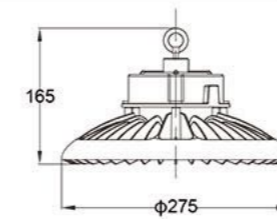
Optics available



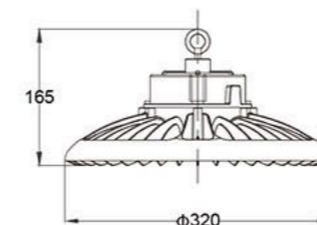
Details



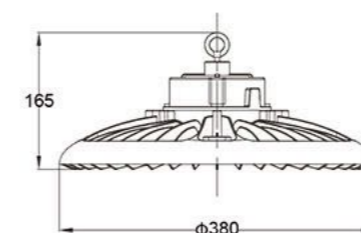
Outboard-driven



TL-LED10A-S



TL-LED10A-S



TL-LED10A-S

Order code	Chip	LED QTY	Lens Type	Power	Luminaire efficacy Up to(lm/W)	Lifespan L70/B10
610101	3030	133	36	100W	120	> 54,000hrs

Order code	Chip	LED QTY	Lens Type	Power	Luminaire efficacy Up to(lm/W)	Lifespan L70/B10
610201	3030	175	36	150W	120	> 54,000hrs

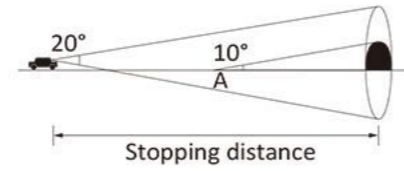
Order code	Chip	LED QTY	Lens Type	Power	Luminaire efficacy Up to(lm/W)	Lifespan L70/B10
610301	3030	234	36	200W	120	> 54,000hrs

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

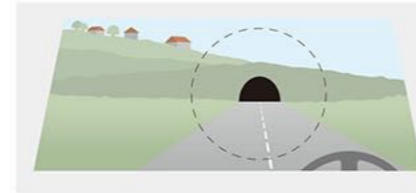
VISUAL ADJUSTMENT

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.



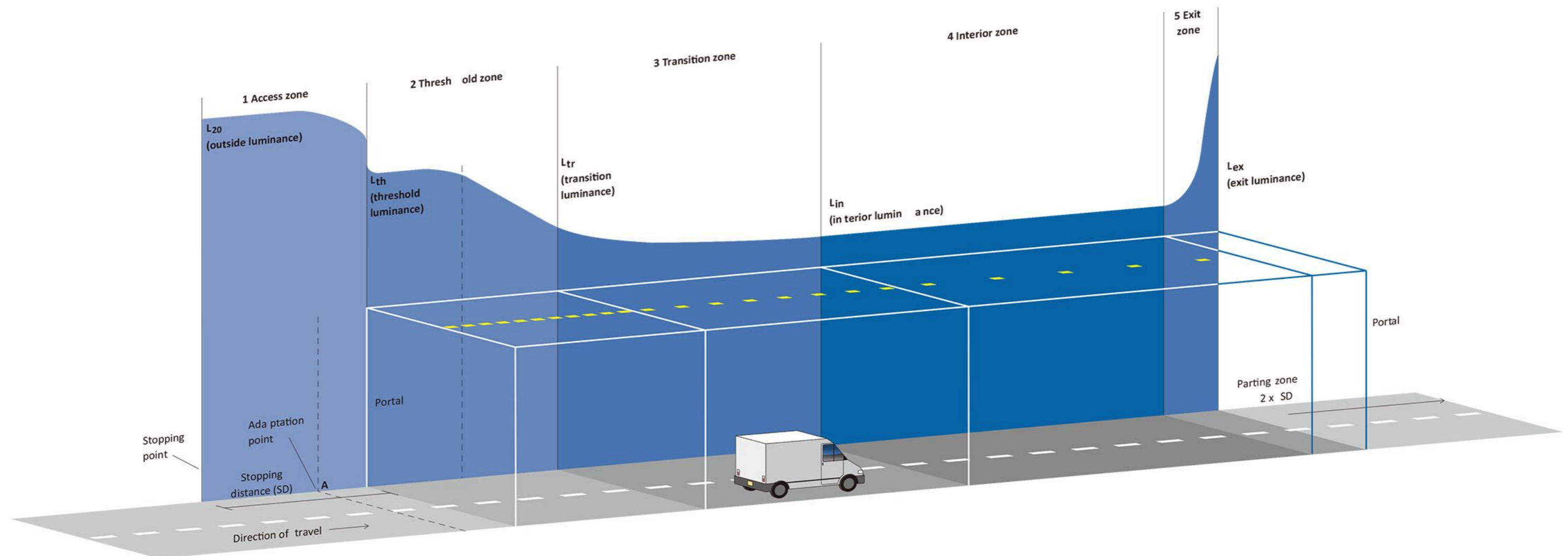
2. Temporal adaptation: human eyes need more time to adapt from brightness to darkness than the reverse. During this period of adaptation, the distance travelled is a critical factor.



TYPICALS 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





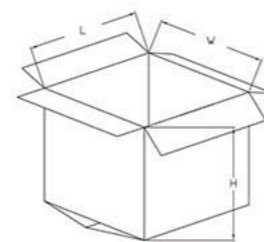
CE CB SAA IP66 IK09 LM79

Technical information

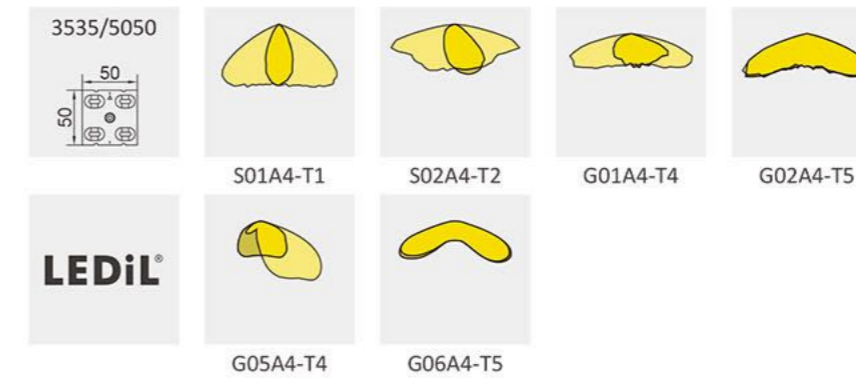
Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70, Ta 25 C	Driver isolation	Class I or Class II
Wattags	30~100W	Control dimming	DALI / 1-10V / Timing / PWM
Light efficacy	Up to 162lm/W	Operating temperature	-35°C~50°C / 10% ~ 95% (humidity)
CRI	≥ 70 or ≥ 80	Body parts material	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

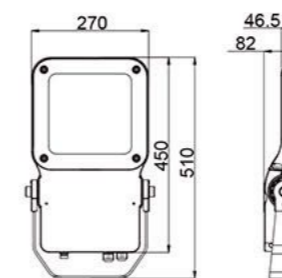
Model	Carton Size(L*W*H)	QTY/Carton	N.W.(kg)	G.W.(kg)
XS TL-LED600-XS	540*315*155mm	1	6.8	7.5



Optics available



Detail



TL-LED600XS

Order code	Chip	LED QTY	Lens Type	Power	Luminaire efficacy Up to(lm/W)	Lifespan L70/B10
4600101	5050	12	4	30W	162	> 54,000hrs
4600102	5050	24	4	60W	162	> 54,000hrs
4600103	5050	36	4	100W	159	> 54,000hrs
4600104	3030	48	16	30W	158	> 54,000hrs
4600105	3030	96	16	60W	158	> 54,000hrs
4600106	3030	114	16	100W	146	> 54,000hrs

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

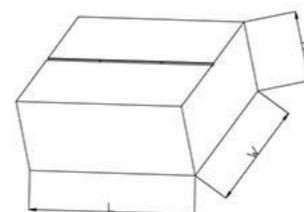


Technical information

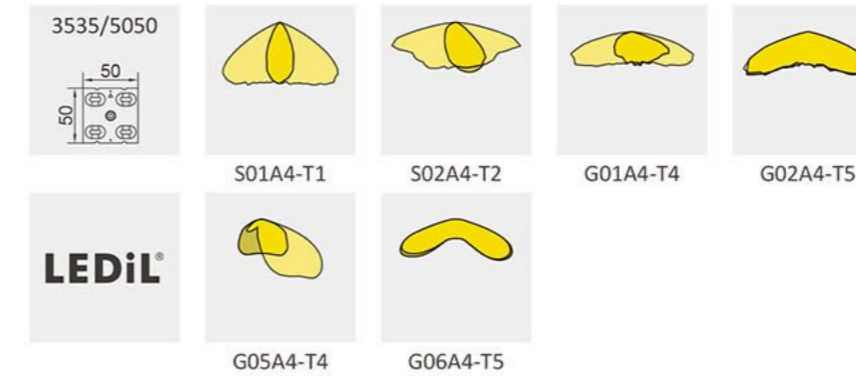
Parameter	Technical data	Parameter	Technical data
Lifetime	Up to 100,000hrs LM70, Ta 25°C	Driver isolation	Class I or Class II
Wattage	100~300W	Control dimming	DALI / 1-10V / Timing / PWM
Light efficacy	Up to 171lm/W	Operating temperature	-35°C~50°C / 10%~95% (humidity)
CRI	≥ 70 or ≥ 80	Body parts material	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

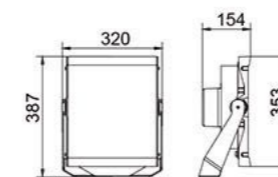
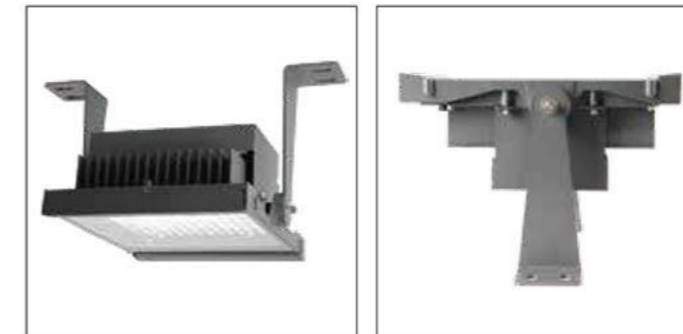
Model	Carton Size(L*W*H)	QTY/Carton	N.W.(kg)	G.W.(kg)
TL-LED1000-S	420*380*245mm	1	10.0	11.3



Optics available



Detail



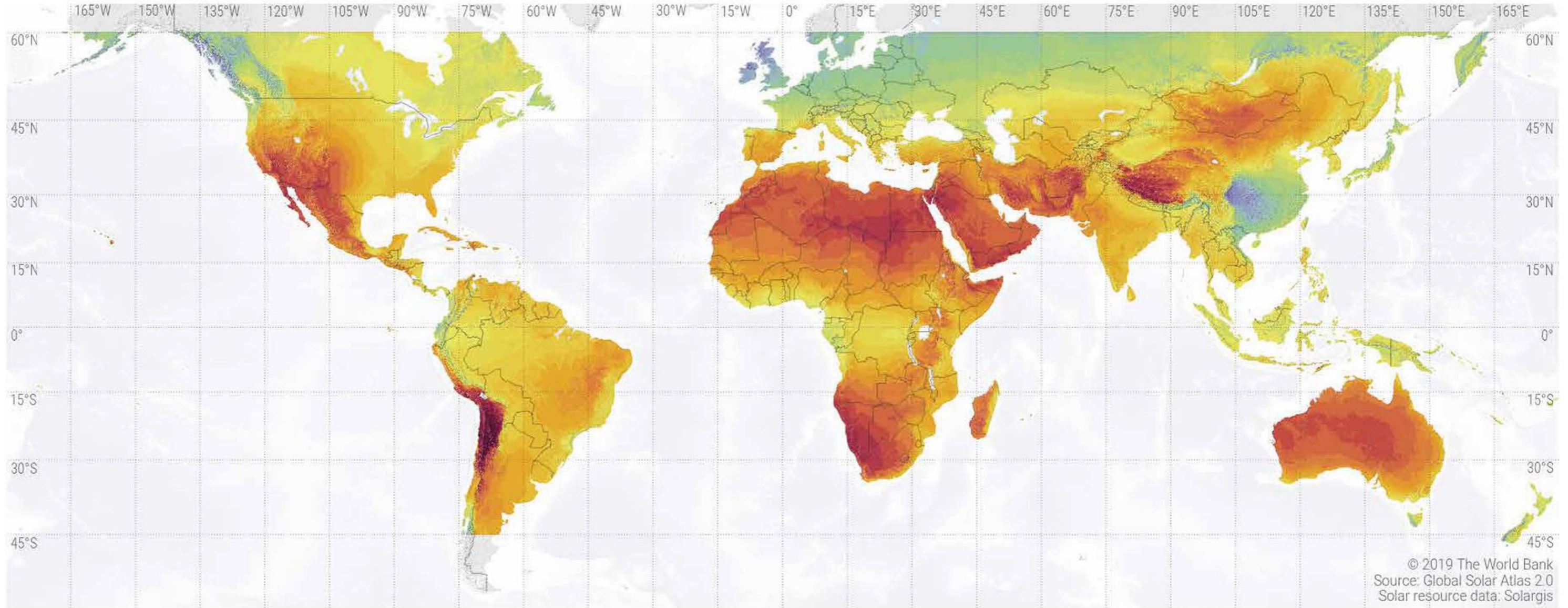
TL-LED1000S

Order code	Chip	LED QTY	Lens Type	Power	Luminaire efficacy Up to(lm/W)	Lifespan L70/B10
41000101	5050	126	8	100W	171	> 54,000hrs
41000102	5050	126	8	200W	161	> 54,000hrs
41000103	5050	126	8	300W	151	> 54,000hrs
41000104	3535	100	4	100W	147	> 108,000hrs
41000105	3535	100	4	200W	135	> 108,000hrs
41000106	3535	100	4	300W	122	> 108,000hrs

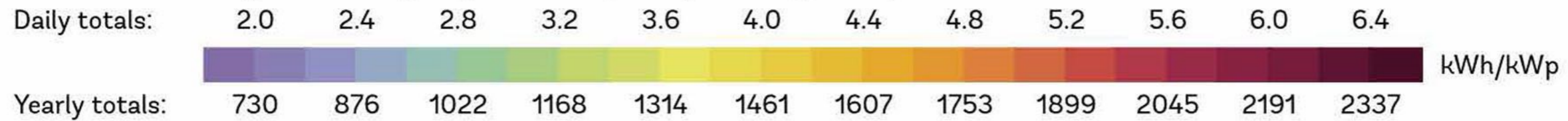
* 5050: LUMILEDS 5050; 3535: CREE XPG3; 3030: LUMILEDS 3030

SOLAR RESOURCE MAP

Photovoltaic power potential



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 or 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.

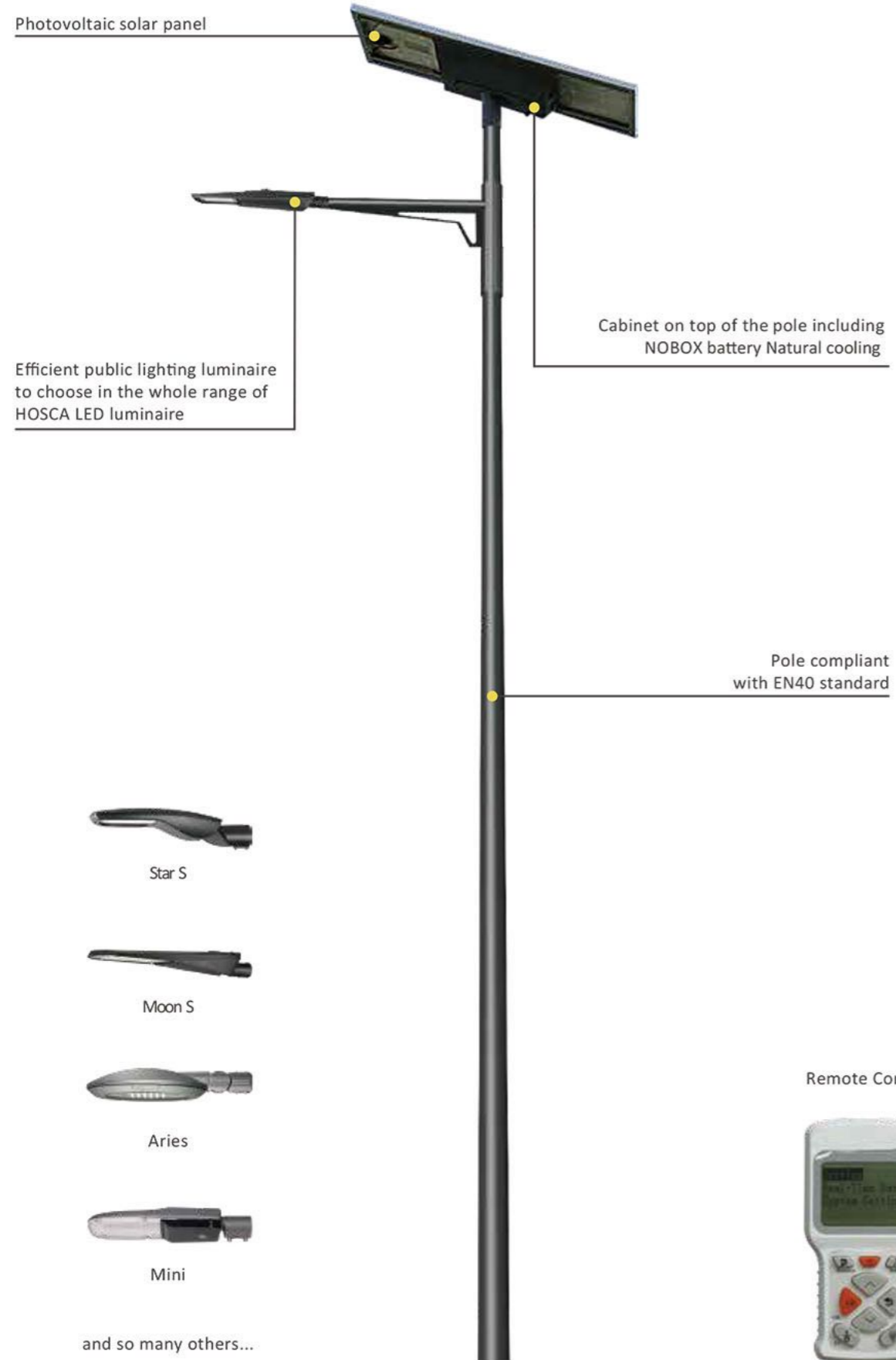
5. How to maintain the solar system?

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.

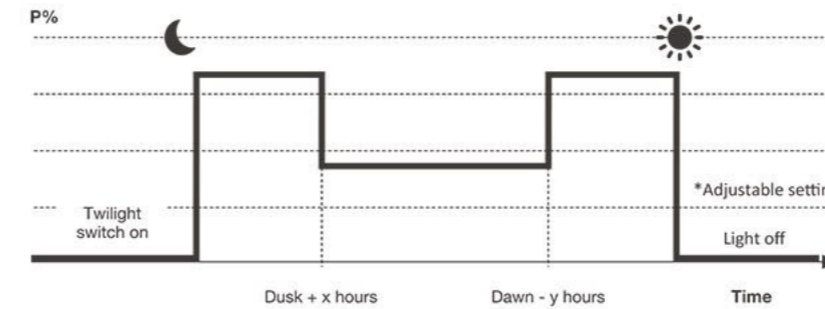
ASKED QUESTIONS



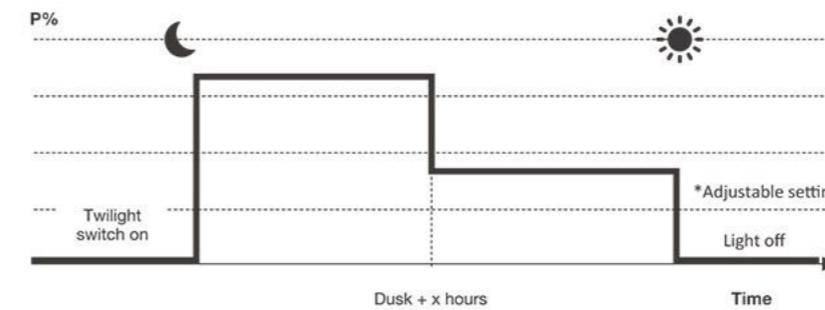
SOLAR STREET LIGHT



PROGRAMMING



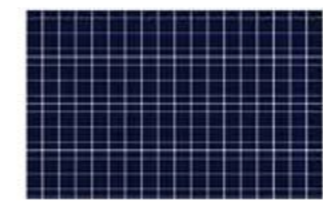
▶ 100% power for x hours after dusk then dim to 50% in the middle of the night and get back to full power y hours before dawn.



▶ 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

Code

Code	Lamp wattage	Solar Panel	Battery	Luminaire output flux
701101	20W	80W(770*670*30mm)	36AH/12.8V	About 2800lm
701102	30W	100W(900*670*35mm)	48AH/12.8V	About 4200lm
701103	40W	120W(1010*670*35mm)	72AH/12.8V	About 5600lm
701104	50W	160W(1260*670*35mm)	90AH/12.8V	About 7000lm
701105	60W	180W(1480*680*35mm)	108AH/12.8V	About 8400lm
701106	70W	120W*2(1260*670*35mm)	66AH/25.6V	About 9800lm
701107	80W	120W*2(1260*670*35mm)	72AH/25.6V	About 11200lm



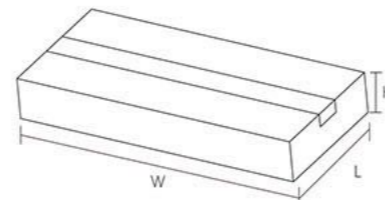
CE CB IP66 IK08

Technical information

Parameter	Technical data	Parameter	Technical data
Battery Parameters	LiFePO4	Sensor	PIR/MICROWAVE
Wattags	18V 30W/50W/100W	Operating temperature	-20°C~60°C / 10% ~ 95% (humidity)
Light efficacy	Up to 180lm/W	Battery Parameters	14AH/12.8V 24AH/12.8V 44AH/12.8V
Color temperature	2200K - 6500K	Nominal Power	15W/20W/30W/40W/60W/80W
Charge Time	6 Hours	System Voltage	12V
Working Time	2-3 Days (Auto Control)	Protection Grade	IP66 & IK08

Packing Information

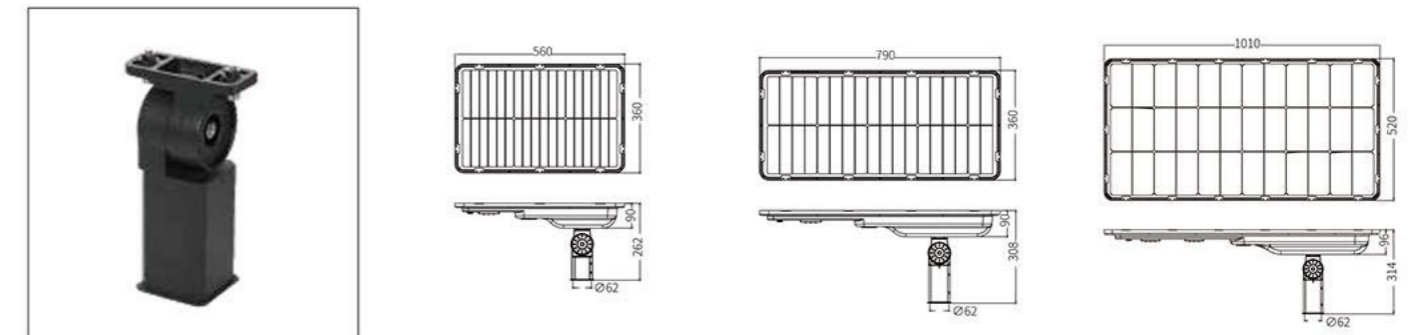
Model	Carton Size(L*W*H)	QTY/Carton	N.W.(kg)	G.W.(kg)
S TL-LED02-S	735*420*128mm	1	6.95	8.45
M TL-LED02-M	968*417*135mm	1	9.62	11.62
L TL-LED02-L	1198*417*135mm	1	16.80	9.00



Optics available



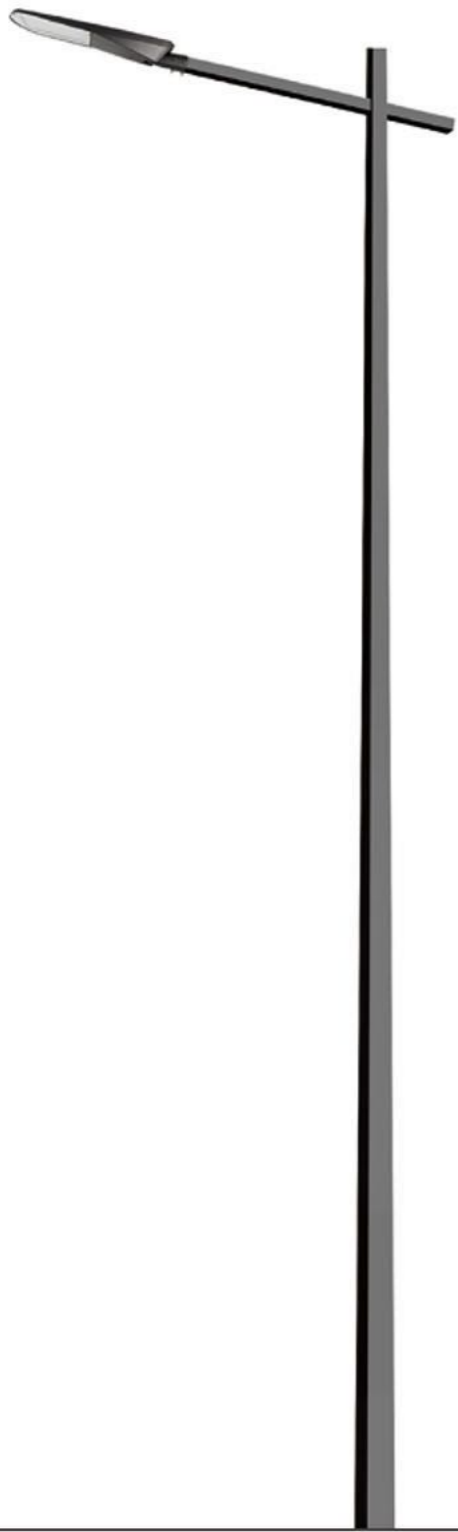
Details



Order code	Chip	LED QTY	Voltage	Power	Luminaire efficacy Up to(lm/W)	Lifespan L70/B10
702101	5050	SMD	18V	20W	180	> 54,000hrs
702201	5050	SMD	18V	40W	180	> 54,000hrs
702301	5050	SMD	18V	80W	180	> 54,000hrs

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

LIGHT POLE



Steel pole



Magic bar



Wisdom light pole



Multi-function integrated pole

LED ENGINE-RETROFIT



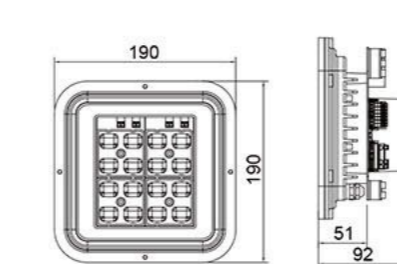
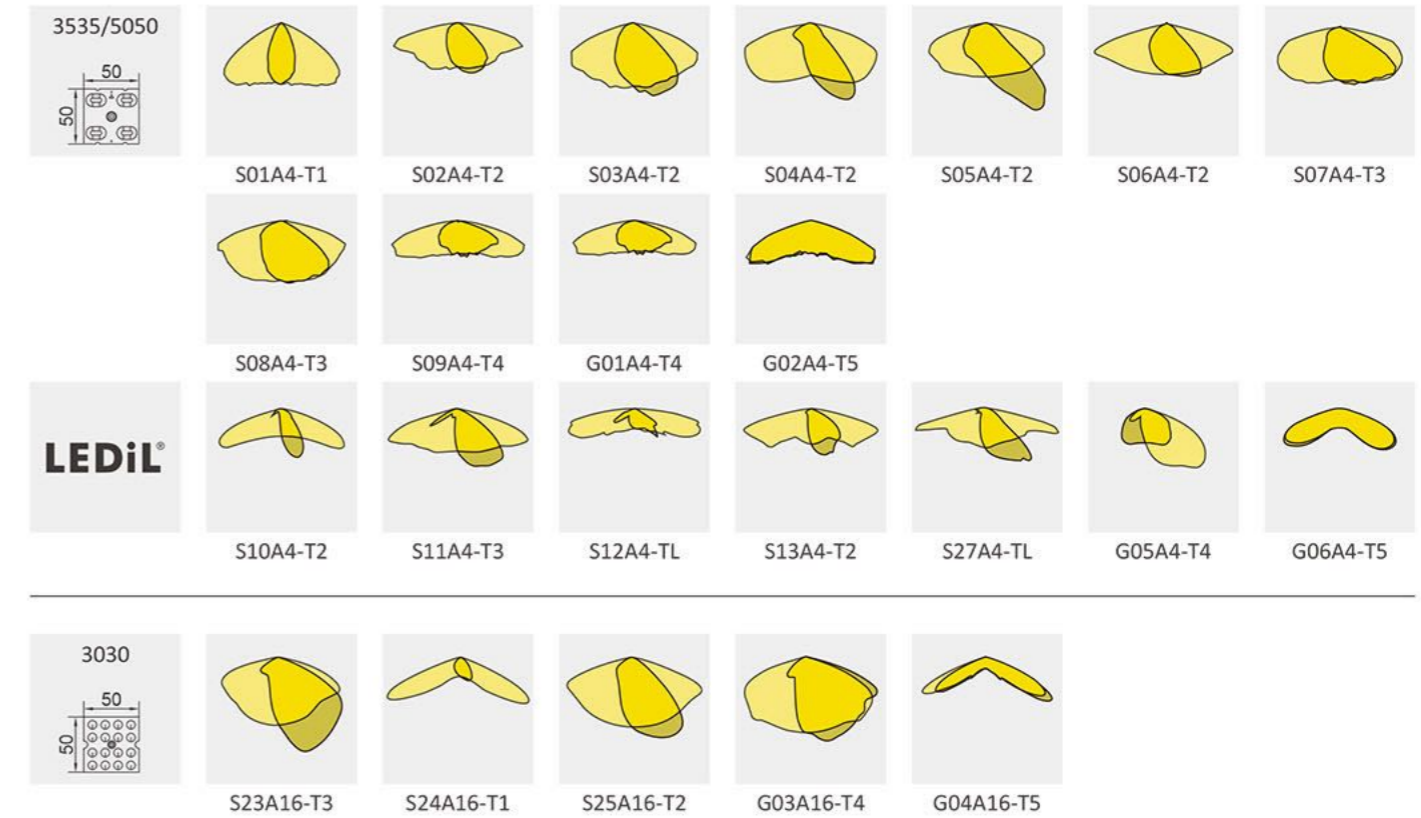
Technical information

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

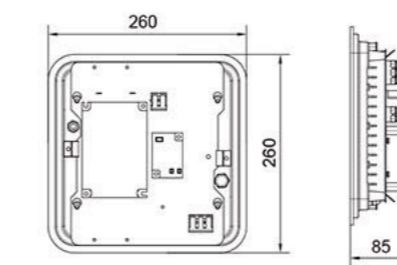
Details



Optics available



TL-001



TL-002

Order code	Chip	LED QTY	Lens Type	Power	Luminaire efficacy Up to(lm/W)	Lifespan L70/B10
901101	5050	8	4	10W	137	> 54,000hrs
901102	5050	16	4	30W	131	> 54,000hrs
901103	3535	8	4	10W	131	> 108,000hrs
901104	3535	16	4	30W	124	> 108,000hrs
901105	3030	32	16	20W	122	> 54,000hrs
901106	3030	64	16	40W	122	> 54,000hrs
Order code	Chip	LED QTY	Lens Type	Power	Luminaire efficacy Up to(lm/W)	Lifespan L70/B10
901201	5050	12	4	20W	134	> 54,000hrs
901202	5050	24	4	40W	134	> 54,000hrs
901203	5050	36	4	80W	134	> 54,000hrs
901204	3535	12	4	20W	126	> 108,000hrs
901205	3535	24	4	40W	126	> 108,000hrs
901206	3535	36	4	80W	126	> 108,000hrs
901207	3030	48	16	40W	115	> 54,000hrs
901208	3030	96	16	60W	122	> 54,000hrs
901209	3030	144	16	100W	117	> 54,000hrs

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

LED ENGINE-RETROFIT



ONE SIZE

TL-LED02



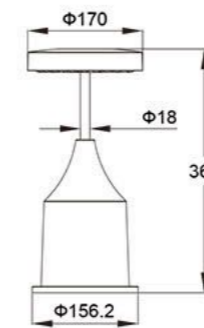
Technical information

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-02

Order code	Chip	LED QTY	Lens Type	Power	Luminaire efficacy Up to(lm/W)	Lifespan L70/B10
902101	5050	24	24	30W	130	> 54,000hrs
902102	5050	30	30	40W	130	> 54,000hrs
902103	5050	36	36	50W	130	> 54,000hrs

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

LED ENGINE-RETROFIT



Optics available



Order code	Chip	LED QTY	Lens Type	Power	Luminaire efficacy Up to(lm/W)	Lifespan L70/B10
903101	3030	64	64	100W	120	> 54,000hrs
903201	3030	64	64	100W	120	> 54,000hrs

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

ADDITIONAL ACCESSORIES

Shorting Cap

Standard: ANSI C136.10 & UL773

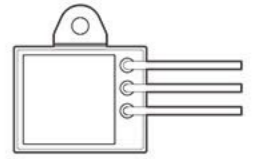
Code.20001001



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

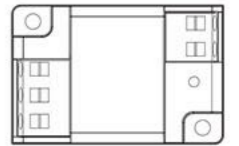
Code.20002001



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.20007011



5PIN / 7PIN Nema Socket

Standard: ANSI C136.10 & UL773

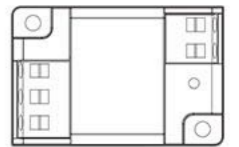
Code.20003001



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.20007013



Zhaga socket

Standard: Zhagabook 18

Code.20004001



Connector

IP68 connector

Code.20008001



Zhaga cup

Standard: Zhagabook 18

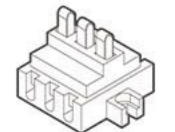
Code.20004002



3 pin Power-off Protecto

L N PE for Calss I

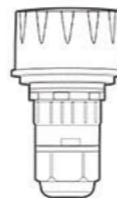
Code.20009001



Zhaga base Motion Sensor

Motion sensor / Daylight Sensor

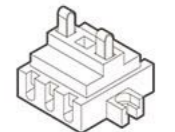
Code.20005001



2 Pin Power-off Protector

L N for Calss II

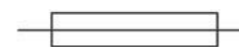
Code.20009002



Fuse wire

5x20mm , Glass , 250V 6A

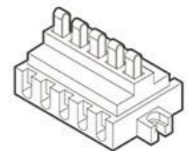
Code.20006001



5 pin Power-off Protector

L N PE Dim+ Dim -

Code.20009003

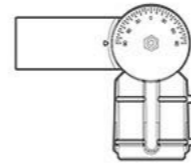


ADDITIONAL ACCESSORIES

Adjustable adapter

Spigot size 60 to 60 mm

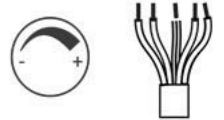
Code.20010001



Pre-installed cable sets

5 G 1.5mm²
D-,D+,PE,N,L
Class I
Dim

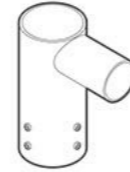
Code.20011001



Fixed steel adapter

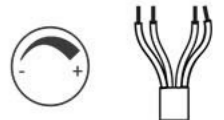
Spigot size 60 to 60 mm

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 48 mm

Code.20010004



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

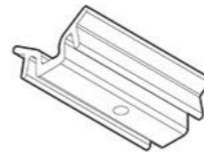
Code.20011004



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



2 lights adaptor for dia

60 mm pole
76 mm pole

Code.20010006



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

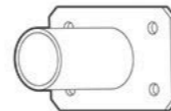
Code.20011006



Wall mounting bracket

Spigot size 40 to 60 mm

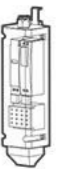
Code.20010007



Protection sequence

Installation at the base of the pole
IP44 & IK08

Code.20012001



Wall mounting bracket

Vertical

Code.20010008



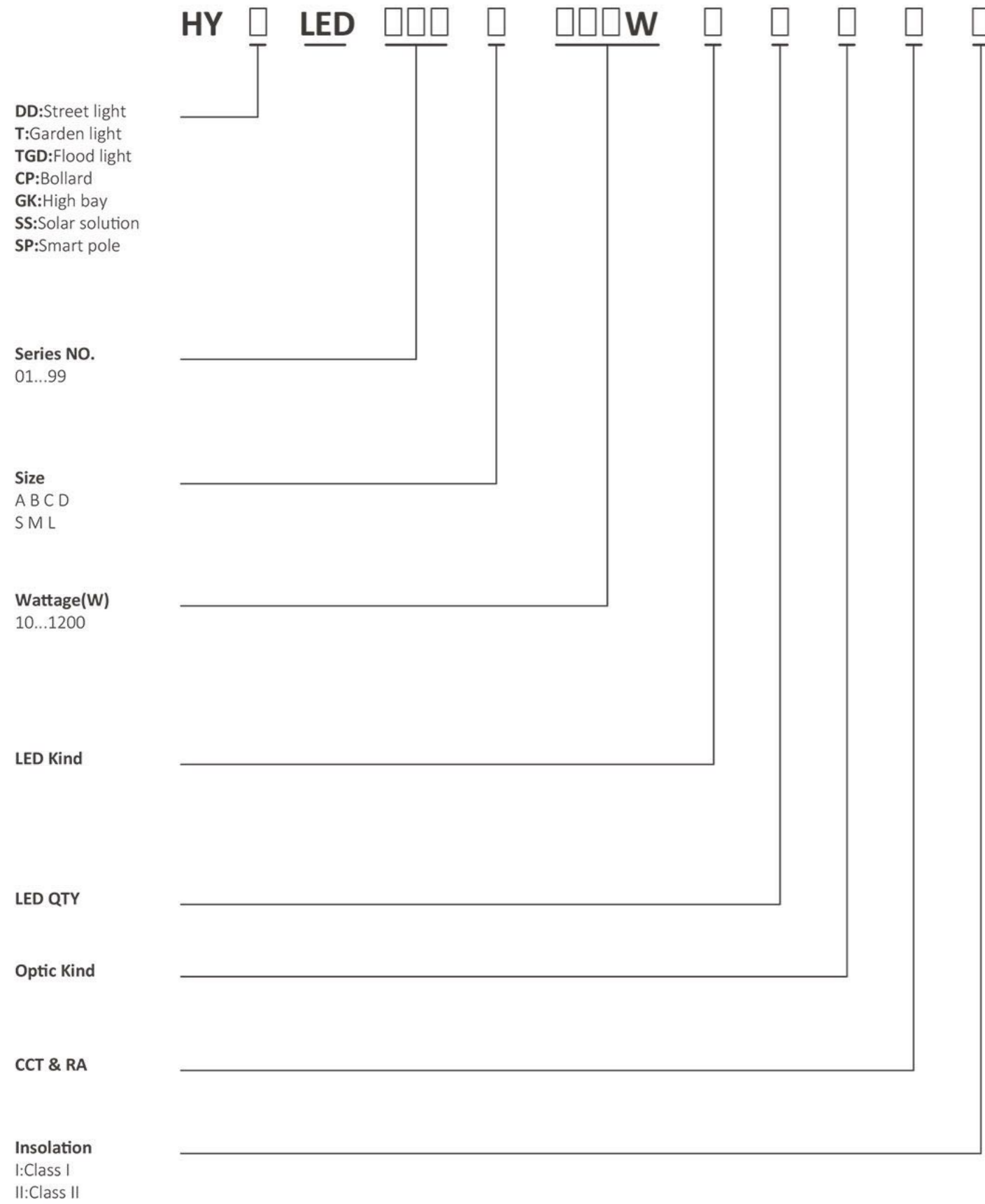
Protection sequence

Installation at the base of the pole
IP44 & IK08

Code.20012002

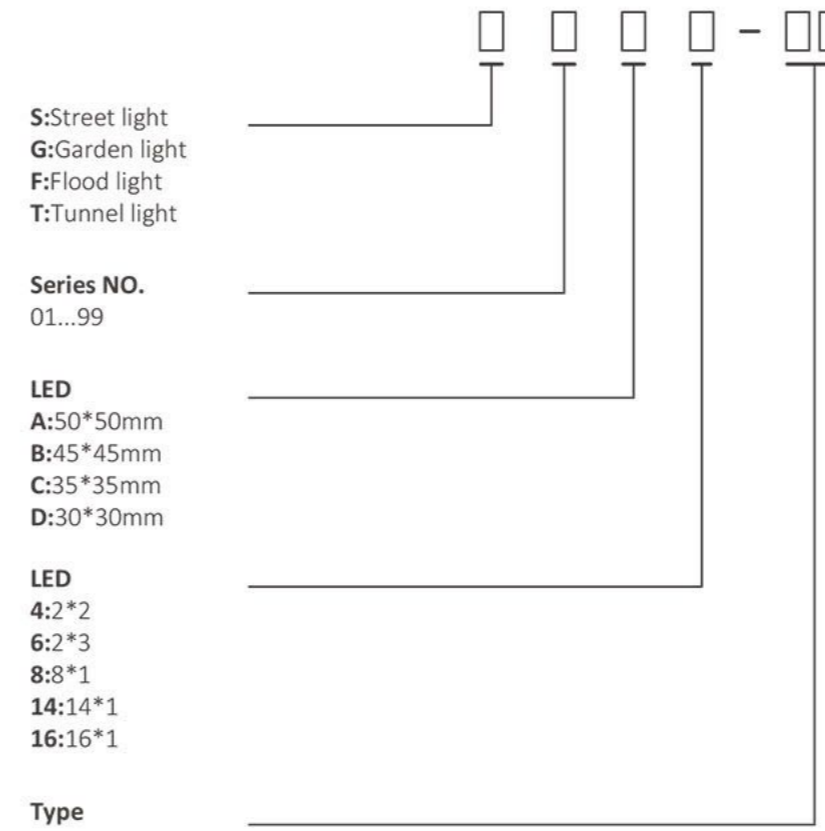


LAMP NOMENCLATURE

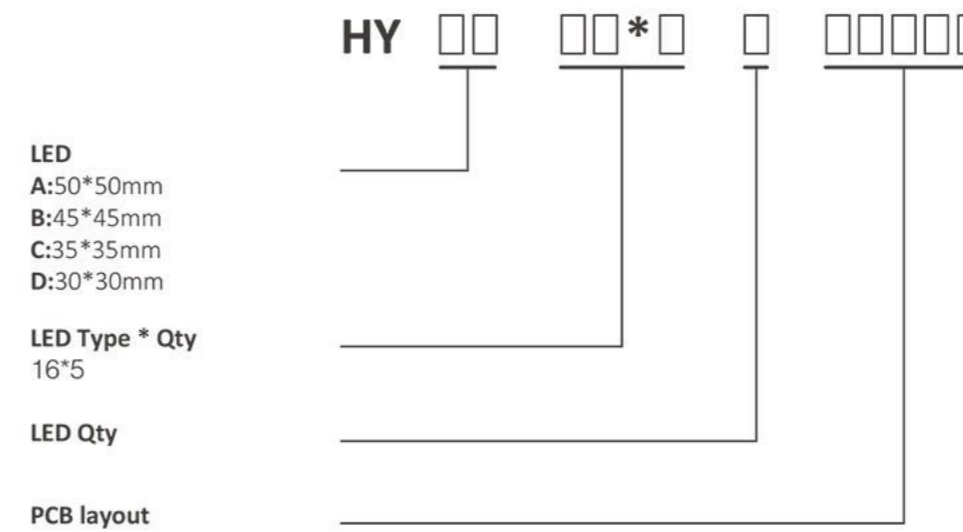


OTHER NOMENCLATURE

Lens nomenclature



PCB Nomenclature





LIGHT AS AN EXPRESSION OF LIFE