



The Main Characteristics

- Smart control
- •Energy saving
- •Environmental protection
- Fast response







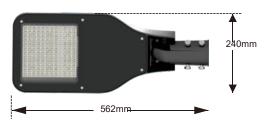


Street Light TBSL 30-180W

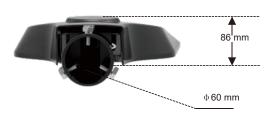
External design

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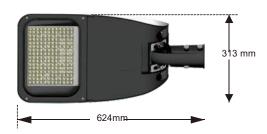
TBSL30/60W







TBSL90W







TBSL120/150/180W







Detail description

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Photo cell

Automatic switch for fixture according to the change of light intensity



NB-IoT

Intelligent interconnection control



LED Driver NON-DIMMABLE

Philips Xitanium or MW XLG series

DIMMABLE

Philips SR series, DALI2 agreement, class I or class II option, good performance and lifespan



Breather

Breather ensure air balance inside and outside of the fixture, which can improves fixture's lifetime



High-efficacy LED light source

Philips Lumileds 3030 LED Greater than 176lm/w high efficacy illumination grade led light source



Power turn off protector

When the lamp maintenance, Open lamp flash, Internal power lamp, Protect the safety of personnel.

WAGO quick connector

Disassemble easily which reduces maintenance costs



Surge protection device(10KV)

To provide more reliable guarantee for LED drive power, extend the life of the product.



Level bubble

Easy for the installer to adjust the position of the lamp.



Electrical parameters

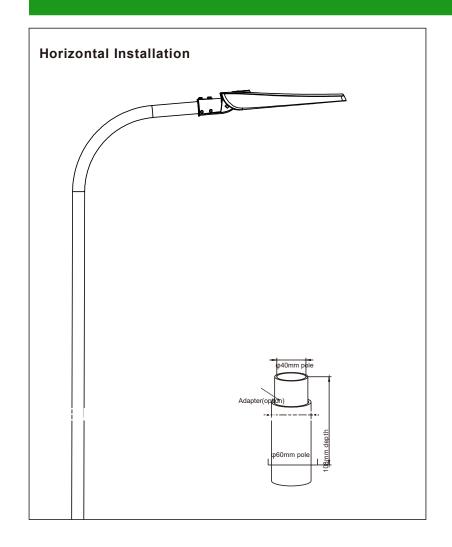
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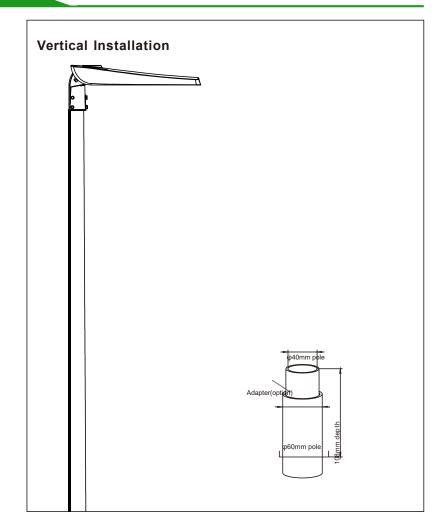
Series	Model	Power	Luminaire efficacy (+/- 5%)	Lumen Output (+/- 5%)(5700K)	Input Voltage	LED Brand	Driver Brand	Light Distributions	сст (к)	Surge Protection Device	Lifetime (h)
	TBSL-30W	30W		4200lm	220-240Vac 50/60Hz	CREE	Mean Well Philips	ME1~ME5	3000 4000 5000 5700	10KV	50000h L70B50
TBSL	TBSL-60W	60W	140lm/w	8400lm							
TBSL	TBSL-90W	90W		12600lm							
TBSL	TBSL-120W	120W		16800lm		Philips 3030					
	TBSL-150W	150W		21000lm							
	TBSL-180W	180W		25200lm							

Series	Model	Working Environment	Storage Temperature	Rating	CRI	PF	Material	Pole Diameter	Product Dimensions(mm)	Carton size(mm)	N.W(kg)	G.W (kg)
TBSL	TBSL-30W	-40~50°C	-40~85°C	IP66 IK08 Class I	>70	>0.95	Dia-casting housing; Low-iron tempered glass; PMMA lens	40/60mm				
IBSL	TBSL-60W								562*240*86	631*318*169	4.3	5.5
TBSL	TBSL-90W								624*313*106	700*390*190	6	7.2
TBSL	TBSL-120W											
	TBSL-150W								731*312*106	800*390*190	7.8	9
	TBSL-180W											

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Installation type





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Multiple light distribution options

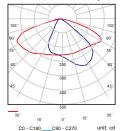
Multiple Light Distribution Options

Street light has a wide range of applications and also these light distribution curves have strict requirements. In order to meet these professional requirements and to comply with the CIE140/EN13201/CJJ45 standard, we designed two different light distribution. Under the premise of meeting the requirements of safe and comfortable lighting and general use of the product, the road with different road widths should be covered with less light as much as possible.

Me1 and ME2 are suitable for multi-lane arterial roads and expressways.

ME3, ME4 and ME5 are suitable for two-lane or single-lane roads and side roads.

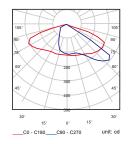




Single-lane carriageway

This narrowd istribution is great for lighting walkways, path and sidewalks spacing height ratio of luminary can reach 3.8,according CIE140/EN13201 requirement(ME3~ME5),those parameters [Lav,U0,UI,TI,SR] are passed in Dialux simulation

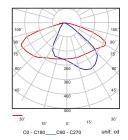




Two-lane carriageway

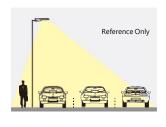
The wide distribution is great for expressways,multi-lane arterial roads. Spacing height ratio of luminary can reach 3.5. According CIE140/EN13201 requirement(ME1~ME2),those parameters [Lav,U0,UI,TI,SR] are passed in Dialux simulation

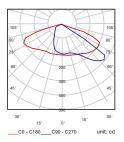




Two-lane carriageway

The narrow distribution also can be used to two-lane carriageway. you can use to apply wide walkways, access road and side roads. Spacing height ratio of luminary can reach 3.8, according CIE140/EN13201 requirement (ME3~ME5), those parameters [Lav.U0.UI.TI.SR] are passed in Dialux simulation.



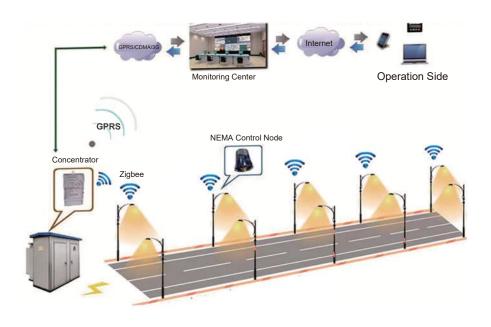


Multi-lane carriageway

The wide distribution also can be used to multi-lane carriageway. You can use to apply multi-lane arterial roads. Spacing height ratio of luminary can reach 3.5. According CIE140/EN13201 requirement(ME1~ME2), those parameters [Lac,U0,UI,TI,SR] are passed in Dialux simulation

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Intelligent street lighting system



If the fixture with PHOTO CONTROL function, the Photo Receptacle will be installed on the cover of fixture. See A. Fit the pins of Photo Sensor to Photo Receptacle, firmly insert and rotate Photo Sensor to proper position.

<Verifying>

Make sure all the connections done and photo control is well installed on the fixture, switch on the power supply and cover the window of photo sensor, wait 5 seconds, the fixture will be turned on.

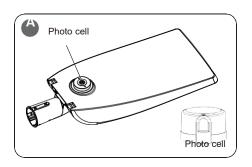
We provides a total solution for intelligence street lighting system.

The street light intelligence system is consist of software, concentrator, terminal controller. The concentrator controller is installed in the distribution cabinet, the terminal controller is installed in the lighting terminal. It proceeds with communication via GPRS/CDMA/WCDMA wireless network or cable network & monitor center and proceeds with communication via ZIGBEE/PLC. Concentrator controller can control each terminal controller via receiving, executing, forwarding PC management

software ,which can control each lamp's switching on /off or dimming ,then save electric energy. It can also monitor the lamps' electric energy to achieve failure lamps function. Concentrator controller can built-in DO to achieve street light loop control, it can connect with other equipment to collect local illumination, temperature and other information, feedback to PC management software and achieve to monitor the current information.

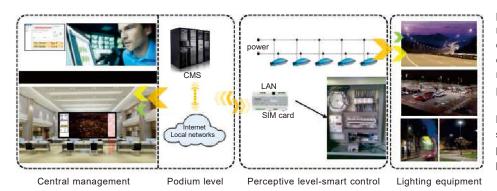
Optical Control

Optical control function is supported by optional



Intelligent energy service platform

Basic framework of intelligent lighting system



If the fixture has NB-loT function, the iLCU6020 will be installed on the housing of fixture. See A. Open the housing of luminary and then fixed the sensor to housing,then lock the nut. Connect the wire between iLCU6020 and driver(PHILIPS SR driver). Close the housing

<Verifying>

Make sure all the connections done and iLCU6020 is well installed on the housing, Scan fixture's ID card and upload to system management software. Open the software to test and manage fixture

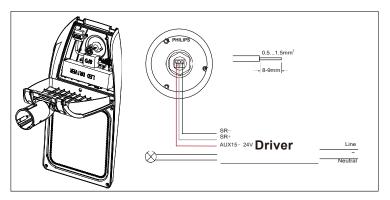
PHILIPS CityTouch flex

This system is consist of four parts, our intelligent street lamp, signal processing center, Internet or local server, and central application management. The intelligent street lamp and the signal processor communicate through GPRS/GSM, and then upload the information to the cloud server or local server, which is managed or analyzed by the street lamp manager. Conversely, street lamp managers can also send instructions to precisely control each street lamp.

NB-IoT lighting has many advantages. It can bring together a variety of sensing technologies. Able to communicate with a single light. Able to partition, switch and dimmer in the cloud. Able to seamlessly connect to third-party devices for energy management.

Optical Control

Optical control function is supported by optional



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Surge protection device

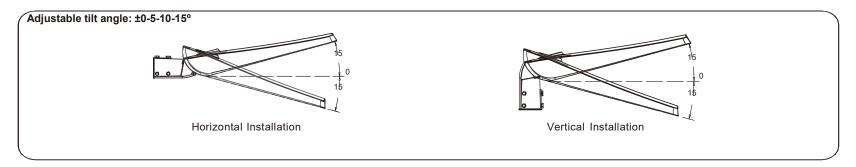
Surge Protection Device

ı Type	Nominal input voltage (V)	Protection level Up (L-N) (KV)	Protection level Up (LN-GND) (KV)	Open circuit voltage Uoc (KV)	Nominal surge current In (KA)
RPM220-10/T	230~240V	≤1.5KV	≤1.5KV	10KV	5KA
Type	Maximum surge current Imax (kA)	Flame retardant grade	Protection classification	Open Circuit Voltage Uoc (KV)	Application
RPM220-10/T	10KA	UL-94VO	Class I	10KV	Build-in use only

General product characteristics T ambient (°C): -40 to +70 °C T case life (°C): +80 °C



Flexible Fitter



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Configuration table

	Configuration										
Product name	Product category	Power	CRI	ССТ	Distribution	Control	SPD				
TBSL	TUBU Street Light	20 [*] /30/40 [*] /60/70 [*] W	>70	2700 [*] / 3000K	ME1-ME5	ON/OFF DALI	YES				
		90/100 [*] W	>80*	4000/ 5000K	Type1*-Type5*	Photo cell [*]					
		120/150/180W		5700/ 6500 [*] K		NB-IoT *					

^{**&}quot;Able to be customized, and please contact PM directly

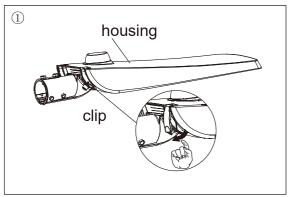
Customization possibility

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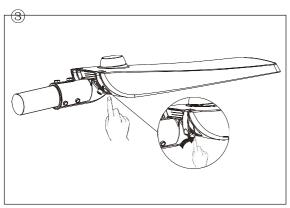
Customizable table Certification **Possibility** Current Note **Available** 30/60/90/120/ **Power** TBD 20/40/70/100W The custom code 150/180W CCT 3000/4000/ The luminous flux will change due to CCT TBD 2700/6500K 5000/5700K **Beam Angle** Type1-Type5 ME1-ME5 TBD > 70 > 80 CRI The luminous flux will change due to CRI TBD ON/OFF DALI Photo cell Control TBD NB-IoT

Installation guide

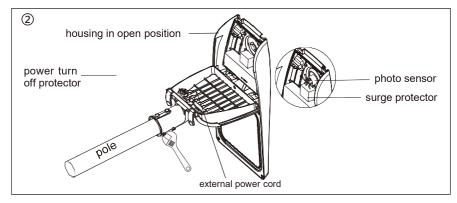
Installation figure



STEP 1: Open the left and right clips on the back of the luminaire. See①.



STEP 3: Close the housing and clips. See ③.

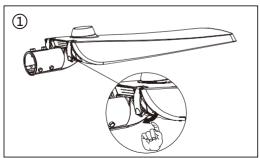


STEP 2:

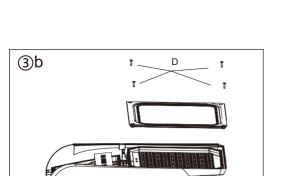
Insert the pole and external power cord into the luminaire cavity. Thread the power cord through the PG11 wiring harness retainer, connect the external power cord to the power turn off protector plug and complete the electrical connections. Keep the base in horizontal level. Fix the luminaire and pole by wrench. See②.

Maintenance guide

Maintain figure

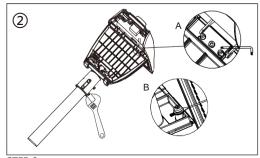


STEP 1:
Opening clips on the back of luminaire (see 1)

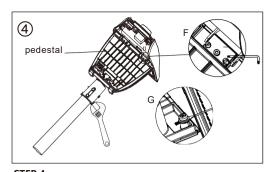


STEP3b:

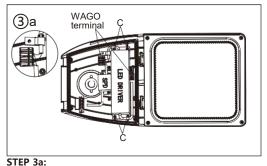
Take out light engine's wire from the terminal, unscrew four M4*16mm screws (see D) and then take down the front cover. unscrew all M3*6 screws(see E) to take down the failed PCBA, and then mount a new PCBA, tighten all M3*6 screws by screwdriver. Mount front cover on the housing and tighten four M4*16 screws.



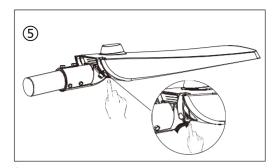
STEP 2:
Keep the housing in open position, loosen two hexagon socket screw(see A) and unscrew the screw (see B), then take the housing down.



STEP 4:Mount housing to pedestal, tighten the screw (see F and G) step by step.



Take out driver's input wire and output wire from terminal. Unscrew four M4*8mm screws(see C) by cross screwdriver, take the failed driver down and replace a new one.



STEP 5: Close the housing and clips. Maintenance finished .



+86-755-84615006 <u>www.tu-bu.com</u> <u>sales@tu-bu.com</u>

Building C,Longteng Road, Gaoqiao District, Pingdi, Longgang ,Shenzhen