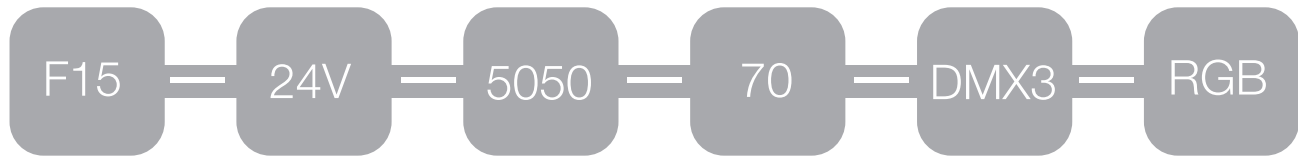


Appendix---Model Encoding

1. Model Encoding

Product Encoding



Shape Model	Working Voltage	LED Type	LED Quantity	Working Mode	Colors/ CCT
F= PVC Material	Low voltage	SMD LED	LEDs / meter	CC= Constant Current	2200K
SF= Silicone Material	12V	2835	56	PWM= Blank	2700K
SF/F15	24V	3528	60	DMX3= 3 Channels	3000K
SF/F16	48V	5050	70	DMX4= 4 Channels	3500K
SF/F17			72	SPI3= 3 Channels	4000K
SF/F18			120	SPI4= 4 Channels	5000K
SF/F21			128		5700K
SF/F10			144		6500K
SF/F09					R=Red
SF/F08					G=Green
SF/F06					B=Blue
					P= Pink
					LY=Lemon Yellow
					A=Amber
					O=Orange
					PP=Purple
					RGB
					RGBW(2200/3000K)
					DW=Tunable White
					(2200K+6500K)

Lead Connector Encoding



Mold Injection	Shape Type	Product Type	Connector Entry	Cable Type
MJ= Mold Injection	PVC=Blank+15 Silicone=SF15	A= Mono Color DW= Tunable White D3= SPI (3 Wires) RGB RGBW D4= DMX (4 Wires) D5= DMX (5 Wires)	S=Side Direction D= Direct Direction B= Bottom Direction L= L Shape 01=Right 02=Left 03= Right+Left	Blank= Bare Wire SM= Male Connector Cable SF= Female Connector Cable SFM= Female+ Male Connector Cable

Assembly Connector kit Encoding



Type	Installed Way	Application Part	Shape Type	Connector Entry Type	Product Type
DIY=Do It Yourself	SN=Snap SC=Screws	FR= Front Connector END= End Cap	15 16 17 21 10 09 08 06	D= Direct Direction 01=Right 02=Left SM= Male Connector Cable SF= Female Connector Cable Blank= Bare Wire	A= Mono Color (2 Wires) DW=Tunable White (3 Wires) RGB=RGB (4 Wires) D3= SPI (3 Wires) D4= DMX (4 Wires)

Appendix---Certificate

2.Certificate

SGS
Certificate CN2100015
This management system of
Dongguan Olympia Lighting Co., Ltd.
Business Registration Address: Building 2, No. 1, Junma 1st Road, Chigang, Humen Town, Dongguan City, Guangdong Province, P.R. China
Business Operation Address: Building 2, No. 1, Junma 1st Road, Chigang, Humen Town, Dongguan City, Guangdong Province, P.R. China
Unified Social Credit Code 91441900MA4UQ2X1XA
has been assessed and certified as meeting the requirements of
ISO 9001:2015
For the following activities
R & D and production of LED strip for decoration and lighting
This certificate is valid from 21 December 2021 until 6 January 2024 and remains valid subject to satisfactory surveillance audits. Recertification audit due a minimum of 60 days before the expiration date. Issue 2. Certified since 7 January 2021
Authorized by
UKAS
MANAGEMENT SYSTEMS
9985
HC 505 9001 2015 0183 911
Page 1 of 1

ISO9001

CERTIFICATE OF COMPLIANCE
Certificate Number: 20190416-E503355
Report Reference: E503355-20190412
Issue Date: 2019-APRIL-16
Issued to: Olympia Lighting Co Ltd
Building C, No.2
Pujiang Road
Daming Community, Humen Town
Dongguan
Guangdong 523930, CHINA
This certificate confirms that representative samples of
LOW-VOLTAGE LIGHTING SYSTEMS, POWER UNITS, LUMINAIRES AND FITTINGS
See Addendum.
Have been investigated by UL in accordance with the Standard(s) indicated on this Certificate.
Standard(s) for Safety: UL 2108, Low Voltage Lighting Systems, CSA C22.2 No. 250.0-08, Luminaires.
Additional Information: See the UL Online Certifications Directory at <https://ul.ulprospector.com> for additional information.
This Certificate of Compliance does not provide authorization to apply the UL Mark. Only the UL Follow-Up Services Procedure provides authorization to apply the UL Mark.
Only those products bearing the UL Mark should be considered as being UL Certified and covered under UL's Follow-Up Services.
Look for the UL Certification Mark on the product.
UL

UL Listed

TCB GRANT OF EQUIPMENT AUTHORIZATION **TCB**
Issued Under the Authority of the Federal Communications Commission
By: MICOM Labs
375 Boulder Court
Pleasanton, CA 94566
Date of Grant: 04/14/2021
Application Dated: 04/14/2021
Attention: Max Liu
NOT TRANSFERABLE
EQUIPMENT AUTHORIZATION is hereby issued to the named GRANTEE, and is VALID ONLY for the equipment identified hereon for use under the Commission's Rules and Regulations listed below.
FCC IDENTIFIER: JAY45-P01Q
Name of Grantee: Dongguan Olympia Lighting Co., Ltd.
Equipment Class: Digital Transmission System LED Strip Light
Notes:
Grant Notes: FCC Rule Part: 15C
Frequency Range (MHz): 402.2 - 2466.2
Output Watts (dBm): 1.6999
Frequency Tolerance:
Emission Designator:
Power: 1
FEDERAL COMMUNICATIONS COMMISSION

FCC

BACL BAY AREA COMPLIANCE LABORATORIES CORPORATION
www.baclcorp.com www.baclcorp.com.cn
backtest@baclcorp.com
ATTESTATION OF CONFORMITY
Attestation Number: AOC SZXX1230621-35828E -13
Date of Issue: 2023-07-20
Applicant: Dongguan Olympia Lighting Co., Ltd.
Company name: Dongguan Olympia Lighting Co., Ltd.
Address: Building 2, No. 1, Junma 1st Road, Chigang Community, Humen Town, Dongguan, 523921, China
Product: LED Neon Flex
Model(s): Tested Style/Item No.: SF18
Additional Style/Item No.: SF16, SF20, SF21, SF22, SF23, SF24, SF25, SF26, SF27, SF28, SF29, SF30, SF31, SF10, SF09, SF06, SF18, SF17, SF31, SF32, SF35, SF36, SF38, SF39, SF08, SP01, SP02, SP03, SP04, SFW20, SF19, SF12, SF14, SF40
Manufacturer & Address: Dongguan Olympia Lighting Co., Ltd.
Trade Mark:
Bay Area Compliance Laboratories Corp. (Shenzhen) hereby declares that the submitted sample(s) of the above equipment has been tested for CE-marking and in accordance with the following European Directives and Standards:
Restriction of the use of certain hazardous substances (RoHS) Directive 2011/65/EU

Substances	Test methods	Test Report Number
RoHS Directive 2011/65/EU and its amendment directive (EU) 2015/863 -XRF screening test and Wet Chemical Testing (Lead, Cadmium, Mercury, Hexavalent Chromium, PBBs & PBDEs content); Prehalobates (DBP, BBP, DEHP, DBP) content	IEC 62321	SZXX1230621-35828E

Mark is permitted only after all applicable requirements are met in accordance with the CE regulation requirements, including the manufacturer's issuance of a Declaration of Conformity. The Declaration of Conformity is issued under the sole responsibility of the manufacturer. This attestation is specific to the standard(s) stated above and compliance with additional standards and/or CE regulations are applicable.
Attestation by: Lab. Manager: Len Xie
Signature: *Len Xie*
C13-C2 (21815) PAGE 1 OF 1

CE

BACL Bay Area Compliance Laboratories Corp.
TEST REPORT
Report No.: SZXX1230621-35828E Date: July 20, 2023 Page 1 of 8
Dongguan Olympia Lighting Co., Ltd.
Building 2, No. 1, Junma 1st Road, Chigang Community, Humen Town, Dongguan, 523921, China
Report on the submitted samples said to be:
Sample Description: LED Neon Flex
Country of Origin: China
Manufacturer: Dongguan Olympia Lighting Co., Ltd.
Supplier: Dongguan Olympia Lighting Co., Ltd.
Tested Style/Item No.: SF18
Additional Style/Item No.: SF16, SF20, SF21, SF22, SF23, SF24, SF25, SF26, SF27, SF28, SF29, SF30, SF15, SF10, SF09, SF06, SF18, SF17, SF31, SF32, SF35, SF36, SF38, SF39, SF08, SP01, SP02, SP03, SP04, SFW20, SF19, SF12, SF14, SF40
As claimed by the material declaration submitted by the client, the material of Additional Style/Item No. are the same as the tested Style/Item No. But the results only for the tested sample. And the applicant will undertake all differences and risk.
Remark:
Sample Receiving Date: June 25, 2023
Latest Re-submit Date: July 12, 2023
Testing Period: June 25-2023 - July 13, 2023
Result: Please refer to next page(s).
Signed for and on behalf of:
BACL
Checked by: *Queenie Lee* Approved by: *Len Xie*
Bay Area Compliance Laboratories Corp. (Shenzhen)
5/FB West, 6F, 7F, the 3rd Phase of Wan U Industrial Building D, Shihua Rd, Futian Free Trade Zone, Shenzhen, China
Tel: +86-755-33320018 Fax: +86-755-33320008 QP-CV-0001 (v1.0)

RoHS

IEC **IECEE** Ref. Certif. No. US-BACL-00175
IEC SYSTEM FOR MUTUAL RECOGNITION OF TEST CERTIFICATES FOR ELECTRICAL EQUIPMENT (IECEE) CB SCHEME
CB TEST CERTIFICATE
Product: LED Linear Flex
Name and address of the applicant: Dongguan Olympia Lighting Co., Ltd.
Building 2, No. 1, Junma 1st Road, Chigang Community, Humen Town, Dongguan, 523921, China
Name and address of the manufacturer: Same as above
Name and address of the factory: Same as above
Additional information on page 2
Ratings and principal characteristics: 24VDC
Trademark / Brand (if any): N/A
Customer's Testing Facility (CTF) Stage used:
Model / Type Ref.: F18-24V-5050-70-SP14-RGBW, F10-24V-3528-144, SF15-24V-5050-70-SP13-RGB, SF18-24V-5050-84, SF08-24V-2835-120, SP01-24V-5050-70-DM14-RGBW, SFW20-24V-3535-24-CC and SFW20-24V-3535-24-SP14-RGBW
See Test Report for information about National Differences
Additional information (if necessary may also be reported on page 2):
A sample of the product was tested and found to be in conformity with:
IEC 60598-2-4:2017 for use in conjunction with IEC 60598-1:2020
R2212142
As shown in the Test Report Ref. No. which forms part of this Certificate
This CB Test Certificate is issued by the National Certification Body
BACL Bay Area Compliance Laboratories, Corp.
1274 Anvilwood Avenue
San Jose, California, 94089, USA
Date: 2023-01-17
Signature: *Robin He*
Robin He

CB

ATTESTATION OF CONFORMITY WITH UK REGULATIONS

Attestation Number: AOC SZXX1230625-36166E-SFA1
Date of Issue: 2023-07-06

Applicant:
Company name: Dongguan Olympia Lighting Co., Ltd
Address: Building 2, No. 1, Junma 1st Road, Chigang Community, Humen Town, Dongguan, 523921, China

Product:
Name: LED Neon Flex
Model(s): See "general product information" in test report for all models information
Manufacturer & Address: Dongguan Olympia Lighting Co., Ltd
Building 2, No. 1, Junma 1st Road, Chigang Community, Humen Town, Dongguan, 523921, China

Trade Mark:
N/A
Bay Area Compliance Laboratories Corp. (Dongguan) hereby declares that the submitted sample(s) of the above equipment has been tested for UK regulations and in accordance with the following Standards:

UK Regulations	Tested for Standards	Test Report Number
Electrical Equipment(safety) Regulations 2016	BS EN IEC 60598-1:2021+A11:2022 BS EN 60598-2-4:2018 BS EN IEC 62031:2020+A11:2021 PD IEC TR 62778:2014 BS EN 62493:2015+A1:2022	SZXX1230625-36166E-SFA1

UKCA Mark is permitted only after all applicable requirements are met in accordance with the UK regulation requirements, including the manufacturer's issuance of a "Declaration of Conformity". The Declaration of Conformity is issued under the sole responsibility of the manufacturer. This attestation is specific to the standard(s) stated above and compliance with additional standards and/or UK regulations are applicable.

Attestation by:
Team Leader: Andy Fu
Signature:

C14 C1 (2020/01) PAGE 1 OF 1

UKCA

Monitoring result for Dongguan Olympia Lighting CO.,Ltd. on site Dongguan Olympia Lighting CO.,Ltd.

Monitoring

Monitored Party : Dongguan Olympia Lighting CO.,Ltd. amfori ID : 156-024963-000
Site : Dongguan Olympia Lighting CO.,Ltd. Site amfori ID : 156-024963-001
Address : Building 2 No.1 Junma 1st Monitoring Activity : amfori Social Audit - Manufacturing road,Chigang,Humen Town, Dongguan, China Monitoring Type : Full Monitoring
: Dongguan Submission Date : 13/10/2021
: Guangdong Sheng Expiration Date : 13/10/2022
: China

This is an extract of the online monitoring result, generated on 15/10/2021, and is only valid as an acknowledgement of the result. To see all the details, review the full monitoring result, which is available here - The English version is the legally binding one.

amfori does not assume any liability with regard to the compliance of this extract, or any versions of this extract, with the Regulation (EU) 2016/679 (General Data Protection Regulation)

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Overall rating

A	B	C	D	E	None
		▲			

Section rating

PA 1: Social Management System	D
PA 2: Workers Involvement and Protection	B
PA 3: The Rights of Freedom of Association and Collective Bargaining	A
PA 4: No Discrimination	A
PA 5: Fair Remuneration	B
PA 6: Decent Working Hours	D
PA 7: Occupational Health and Safety	B
PA 8: No Child Labour	A
PA 9: Special Protection for Young Workers	A
PA 10: No Precarious Employment	A
PA 11: No Bonded Labour	A
PA 12: Protection of the Environment	C
PA 13: Ethical Business Behaviour	A

BSCI

AGC Recognized by China National Accreditation Service for Conformity Assessment (CNAS)

Laboratory address: 101 Building 2, A101, Building 5, Sanyue 1st Industrial Park, Sanyue Community, Jiangsheng Street, Baian District, Shenzhen, Guangdong, China (518109)

Certification of Conformity

Registration No.: AGC11307211101SR01

Certificate Holder: OLYMPIA LIGHTING CO., LTD
Building 2, No. 1, Junma 1st Road, Chigang Community, Humen Town, Dongguan, 523921, China

Product Designation: Silicone LED Neon Strips

Brand Name: /

Model / Series Models: SF06,SF08,SF09,SF10,SF15,SF16,SF17,SF18,SF21

Note: The main test model is SF16, SF06, SF08, SF09, SF10, SF15, SF17, SF18, SF21 are the same as SF16 except that the model names are different.

Requirement	Applied Standards	Document Evidence	Result
IP68	IEC 60598-1:2014+Amd 1:2017	AGC11307211101SR01	Conform

IP68

David Wong
Authorised Officer
AGC
Issue Date: Nov 11, 2023

The EUT description above has been tested in accordance with the relevant listed standard certificate. The certificate is only applicable to the equipment described above. The certificate does not imply assessment of the production. The certificate is only applicable to the equipment described above. The certificate shall not be re-produced except in full without the written approval of Attestation of Global Compliance (AGC).

Note: This certificate is one of the full test report(s) and should be used in conjunction with it.

Any report being not been signed by authorized approval, or having been altered without authorization, or having not been stamped by the authorized approval, shall be deemed to be invalid. Copying or reworking portion of, or altering the content of the report is not permitted without the written permission of AGC. The test results presented in the report apply only to the tested samples. Any objections to report issued by AGC should be submitted to AGC within 15 days of the test report. Further enquiry or objection of the test report should be addressed to AGC by email: agc@agc-cert.com

Attestation of Global Compliance (Shenzhen) Co., Ltd
Attestation of Global Compliance (Shenzhen) Co., Ltd
146-488-795 2023-07-06 E-mail: agc@agc-cert.com Web: http://agc-cert.com/

IP68

Appendix---Reliability Test

3. Reliability Test

Optical Testing

Spectrum Analysis	IES LM 79 (Lumen, CCT, CRI, XY, SDCM, wavelength)
Photometric Distribution	IES LM 73 (Lumen intensity distribution & Lux diagram)
Lumen Maintenance & Lifetime	IES LM 84 & IES TM28

Temperature Testing

T=25°C Normal Temperature Test	UL1598 & UL2388 & IEC60598-1 & IEC60598-2-21
T=70°C Abnormal Operation Test	UL1598 & UL2388 & IEC60598-1 & IEC60598-2-21

Durability Testing

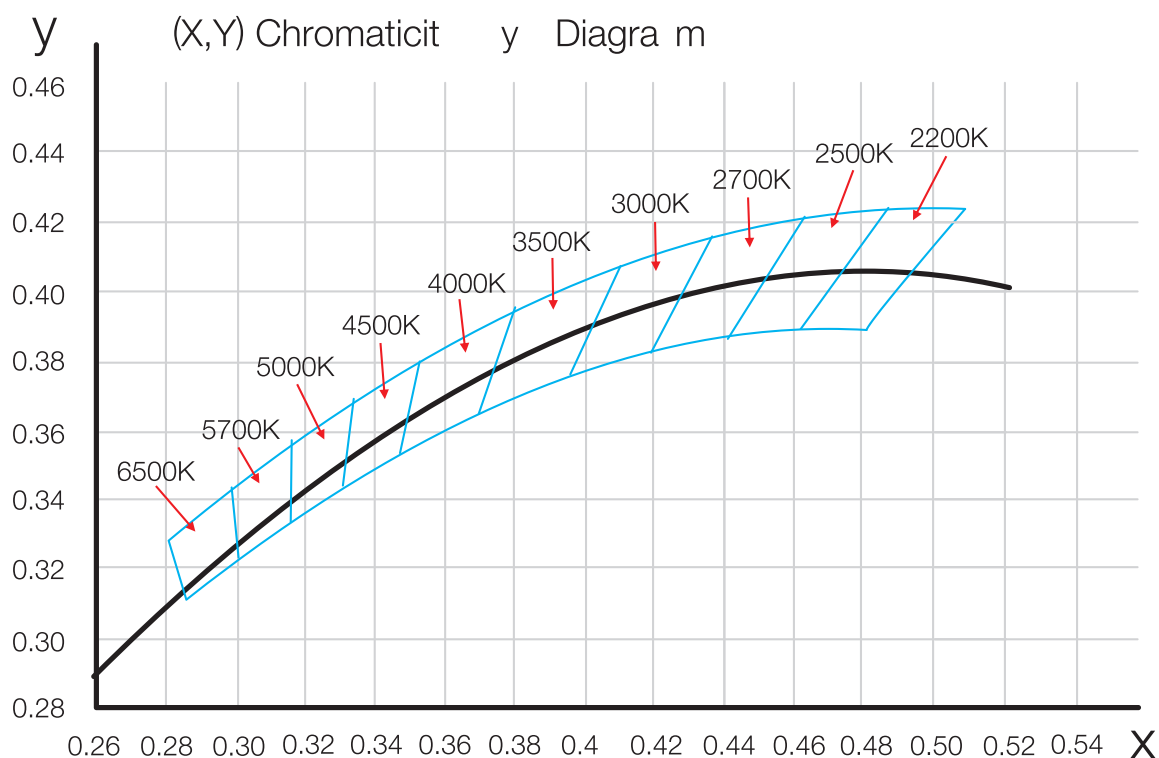
Bending Test	Manufacturer-defined, 1000 cycles
Swing Test	UL2388, >750 cycles
Tensile Test	Manufacturer-defined, > the weight of light in Max. connection length double feed
Twist Test	Max connection length double feed Manufacturer-defined, >200 cycles
Ball Impact	UL1598 & UL2388 & IEC60598-1 & IEC60598-2-21
IK07 IK08	IEC62262

Environmental Testing

Chlorinated Water Immersion	BG9667, PH6.8-7.6, free chlorine 0.3-0.6mg/L
Salt Water Immersion	IEC60598-1, Salinity 4%
Salt Spray Test	IEC68-2-11
Outdoor Exposure	Manufacturer-defined
Flame Resistance	UL94
UV Exposure	ASTMG 154, ISO 4892-3, UVA @ 340nm
IPX5, IPX6, IPX7, IPX8	IEC60529
Temperature Shock	Manufacturer-defined, -40°C- 60°C (typical temperature range)
Constant Temperature	Manufacturer-defined, 70°C (typical temperature range)

Appendix---(x , y) Chromaticity Diagram & Correlated Color Temp.

4. (x , y) Chromaticity Diagram



5. Correlated Color Temperature (CCT)

ANSI Standard

Nominal CCT Categories (2200-6500K)

Nominal CCT	Target CCT & tolerance(k)	Target D_{uv}	D_{uv} Tolerance Range
2200K	2238±102	0.0000	T_x : CCT of the source for $T_x < 2870K$
2500K	2460±120	0.0000	0.000±0.0060
2700K	2725±145	0.0000	For $T_x \geq 2870K$
3000K	3045±175	0.0001	$D_{uv}(T_x) \pm 0.0060$
3500K	3465±245	0.0005	where
4000K	3985±275	0.0010	$D_{uv}(T_x) = 57700 \times (1/T_x)^2$ $-44.6 \times (1/T_x)$ $+0.00854$
4500K	4503±243	0.0015	Remark:
5000K	5029±283	0.0020	1) T_F is chosen to be at 100K steps (2300, 2400, ..., 6400K)
5700K	5667±355	0.0025	the ten nominal CCTs listed in table 1.
6500K	6532±510	0.0031	2) $\Delta T = 1.1900 \times 10^8 \times T^{-3}$ $1.5434 \times 10^4 \times T^2 + 0.71648 \times T - 902.55$
			3) Same as in the DUV tolerance range
Flexible CCT	$T_F^{1)} \pm \Delta T^{2)}$	$D_{uv} T_F^{3)}$	

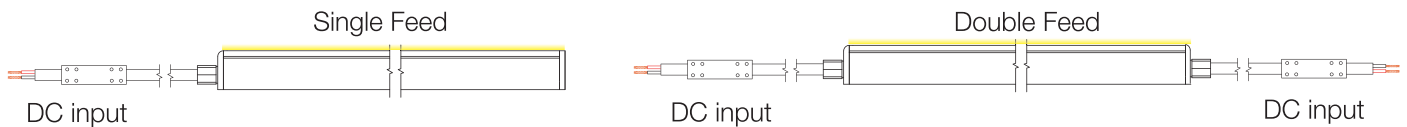
Appendix---Loading Chart & Recommendation Of Extension Wire

6. Loading Chart

Power Supply

Power	40W	60W	80W	100W	120W	150W	185W	240W	320W	480W
5W	6m	9m	12.5m	16m	18m	24m	29.5m	38m	50m	70m
7.2W	5m	6m	8.5m	11m	13m	16.5m	20.5m	26.5m	30m	53m
8W	4m	6m	8m	10m	12m	14m	18m	23m	32m	45m
9W	3.5m	5m	7m	8.5m	10.5m	12.5m	16m	21m	28m	41m
10W	3m	4.5m	7m	8m	9.5m	12m	14.5m	19m	24m	35m
12W	2.5m	4m	6m	7.5m	8m	10m	12.3m	16m	21.3m	28m
13W	2.4m	3.5m	4.8m	6m	7m	9m	11m	14.5m	19.5m	29.5m
15W	2m	3m	4.2m	5m	6m	8m	9.8m	12.5m	17m	25m
16W	2m	3m	4m	4.5m	6m	7.5m	9m	12m	16m	24m
17W	1.8m	2.8m	3.7m	4.5m	5.5m	7m	8.4m	11m	15m	22.5m
18W	1.7m	2.6m	3.5m	4.4m	5.3m	6.8m	8m	10.5m	14m	21m

Lead Type



Note: These are the max recommended run lengths based on power supply.

And each model product should be obeyed by its maximum length.

For example: It is recommended to use one 40W power supply for a single-feed run of 6m at 5W/m.

7.Recommendation Of Extension Wire

Maximum extension wire length according to Light power

Watts Of Light	22AWG 0.34mm ²	20AWG 0.53mm ²	18AWG 0.82mm ²	17AWG 1.04mm ²	16AWG 1.38mm ²	14AWG 2.07mm ²	12AWG 3.29mm ²	10AWG 5.6mm ²
10W	36m	60m	100m	120m	140m	240m	400m	600m
20W	18m	30m	50m	60m	70m	120m	200m	300m
30W	12m	20m	30m	38m	45m	80m	130m	200m
40W	8m	15m	22m	28m	35m	60m	95m	140m
50W	6m	12m	18m	22m	28m	48m	75m	105m
60W	5m	10m	15m	18m	22m	36m	60m	88m
70W	/	8m	12m	14m	18m	30m	50m	72m
80W	/	6m	10m	11m	14m	24m	40m	58m
90W	/	4m	7m	8m	10m	18m	30m	45m
100W	/	/	5m	6m	7m	12m	22m	32m
110W	/	/	3m	4m	5m	8m	15m	22m
120W	/	/	2m	2.5m	3m	0m	8m	12m

Noted: 1.The values doesn't include the 0.6m cable connected to the front connector.

2.To ensure the reliability of wire connection and avoid problem of voltage drop, the extension wire length should be smaller than the above recommended values.