

CERTIFICATE OF COMPLIANCE

Certificate Number 20190523-E473513
Report Reference E473513-20150130
Issue Date 2019-MAY-23

Issued to: SHENZHEN MINGXUE OPTOELECTRONICS CO LTD
4Th Bldg Baodazhou Blk
Shancheng Industry Area
Shiyan Town Baoan District
Shenzhen 518108 CHINA

**This certificate confirms that
representative samples of**

LOW-VOLTAGE LIGHTING SYSTEMS, POWER UNITS,
LUMINAIRES AND FITTINGS
See addendum page

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. 250.0-18, Luminaires

Additional Information:

See the UL Online Certifications Directory at
<https://iq.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.



Bruce Mahrenholz, Director North American Certification Program
UL LLC

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This is to certify that representative samples of the product as specified on this certificate were tested according to the current UL requirements.

Low Voltage LED Lighting System (IFDR/7), Surface-Mounted Luminaire, suitable for wet location use except when the model name "F" is "A", when model name "F" is "A" should be marked suitable for dry location use only, detail model name see below :

Model MABCDEFG-HIJKLM series:

A: Can be F, represent product style, is flexible LED strip.

B: Can be 2 or 3, represent voltage. "2: DC12V, 3: DC24V"

C: Can be 22, 28,31,35 or 50, represent LED type. "22: 2216, 28: 2835, 31: 3014, 35: 3528, 50: 5050"

D: Can be P,G,Y,R,C,A,B,K,O,W,V,Z,U or X, represent LED color. "P : Purple, G : Green, Y : Yellow, R : Red, C : Pink, A : RGB, B : Blue, K : Kelly, O : Orange, W : White, V : warm white, Z : RGBW, X: RGBY/RGBCCT/RGBCW, U : CCT

E: Can be 030,048, 060, 072, 080, 084, 096, 120, 140, 160,168, 192,240, 300 or 420, represent the number of LED per meter. "030: 30 LEDS Per meter, 048: 48 LEDS per meter, 060: 60 LEDS per meter, 072: 72 LEDS per meter, 080 : 80 LEDS per meter, 084: 84 LEDS per meter, 096: 96 LEDS per meter, 120: 120 LEDS per merter, 140: 140 LEDS per meter,160: 160 LEDS per merter, 168: 168 LEDS per merter, 192: 192 LEDS per meter,240: 240 LEDS per meter, 300: 300 LEDS per meter, 420: 420 LEDS per meter." Whne the C is 28 or 35 or 50 , the Max. number of E is 240.

F: Can be A,B,C,D,E,F,G,H or I, represent water proof method. "A: Bare Board, B: epoxy Resin, C: PU, D: Silicon Rubber, E:PVC Casing filled with epoxy Resin, F: Sillicon casing filled with Sillicon Rubber , G:Sillicon Casing, H:Semi-closed PU Casing filled with PU, I:PVC Casing

G: Can be 70, 80, 85, 90, 95 or 00, represent CRI. "70: 70~79, 80: 80~84, 85: 85~89, 90: 90~94, 95: > 95, 00: <70."

H: Can be A,B,C,D,E or F, represent PCB color and technology. " A: sigle-sided yellow board; B: Double-sided yellow board; C: single-sided white board; D: Double-sided white board; E: Single-sided black board; F: Double-sided Black board."

I: Can be

018,022,025,027,030,035,040,045,050,057,065,075,085,100,391,394,397,400,403,406,460,463,466, 469,472,497,500,503,513,516,519,522,586,588,590,592,594,600,603,606,

615,620,625,630,635 or 640, represent CCT/Wavelength. "018 : 1800K,022 : 2200K,025 : 2500K,027: 2700K, 030: 3000K, 035:3500K, 040: 4000K, 045: 4500K, 050: 5000K, 057: 5700K, 065: 6500K, 075 : 7500K,085 : 8500K,100 : 9000-13000K,391: 391-394 nm, 394: 394-397nm, 397: 397-400nm, 400: 400-403 nm, 403: 403-406nm,460: 460-463nm, 406:406-409nm, 460: 460-463nm, 463: 463-466nm, 466: 466-469nm, 469:469-472nm, 472: 472-475nm, 497: 497-500nm, 500:500-503nm, 503: 503-506nm, 513:513-516nm, 516: 516-519nm, 519: 519-522nm, 522: 522-525nm, 586: 586-588nm, 588 : 588-590nm, 590: 590-592nm, 592: 592-594nm, 584: 594-596nm, 600: 600-603nm, 603:603-606nm, 606: 606-609nm, 615: 615-620nm, 620: 620-625nm, 625: 625-630nm, 630:630-635nm, 635: 635-640nm, 640: 640-645nm"



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J: Can be A,B,C,D,E,F,G,H or Ta-Tz, represent connection method. "A: 15cm long 20# 1007 black & red wire, B: 15cm long wire with black female DC connector, C: 15cm long wire with white female DC connector, D: 15cm long wire with clear female DC connector, E: 2 PIN waterproof connector, F: 2 PIN air docking female connector, G: 4 PIN waterproof connector, H: 4 PIN air docking female connector, Ta-Tz: other method"

K: Can be 1,2,3,4 or 0, represent LED stripe secured method."1: 3M yellow adhesive tape, 2: 3M white adhesive tape, 3: 3M red adhesive tape, 4: silicon clamp and screws, 0: special 3M adhesive tape"

L: Can be A,B,C,D,E or T, represent PCB screen printing requirements. "A: with scissors marking, no scale, no LOGO; B: With scissors marking, with scale, no LOGO; C: With scissors marking, no scale, with LOGO; D: With scissors marking, with scale, with LOGO; E: With cutting lines, no scale, no LOGO; T: Other requirements"

*M: Can be 05, 08,10 12 or 20, represent width of PCB. "05: 5mm,08: 8mm, 10: 10mm, 12: 12mm,20: 20mm" the "05" only is for the C is "28, 35,31,22", the "20" only is for the C is "50".



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