

# LM-82-12 TEST REPORT

## Applied for SASO-2927

|   |  |   |   |
|---|--|---|---|
| <b>Kunde:</b><br><i>Client:</i>   | MIC Optoelectronic Co., Ltd  |   |   |
| <b>Adresse:</b><br><i>Address:</i>  | 2nd floor,Third Building, 97# AiNan Road,LongDong, BaoLong Street, LongGang District, Shenzhen, China  |   |   |
| <b>Hersteller:</b><br><i>Manufacturer:</i>  | MIC Optoelectronic Co., Ltd  |   |   |
| <b>Adresse:</b><br><i>Address:</i>  | 2nd floor,Third Building, 97# AiNan Road,LongDong, BaoLong Street, LongGang District, Shenzhen, China  |   |   |
| <b>Name der Marke:</b><br><i>Brand Name:</i>  | MIC  |   |   |
| <b>Beschreibung des Produkts:</b><br><i>Product Description:</i>  | LED Street Light   |   |   |
| <b>Modelle:</b><br><i>Models:</i>   | MSL-F240   |   |   |
| <b>Bewertung:</b><br><i>Rating:</i>   | AC100-277V, 50/60Hz, 240W  |   |   |
| <b>Verfahren:</b><br><i>Method:</i>   | LM-82-12: Approved Method for the Characterization of LED Light Engines and LED Lamps for Electrical and Photometric Properties as a Function of Temperature<br>SASO 2927: 2019:Energy efficiency functionality and labelling requirements for lighting products – Part 3: Street lighting |   |   |
| <b>Prüfergebnis*:</b><br><i>Test result*:</i>   | /  |   |   |
| <b>Datum der Prüfung:</b><br><i>Date of Test:</i>   | <b>Datum der Emission:</b><br><i>Date of Issue:</i>  | <b>Klassifizierung:</b><br><i>Classification:</i>     | <b>Gegenstand der Prüfung:</b><br><i>Test item:</i> |
| 17-06-2025  | 07-07-2025   | Commission Test                                       | LM-82-12  |
| <b>Prüflabor (Testlabor) / Testing Laboratory:</b><br>Shenzhen Southern LCS Compliance Testing Laboratory Ltd.<br>101-201, No.39 Buliding, Xialang Industrial Zone, Heshuikou Community,<br>Matian Street, Guangming District, Shenzhen, China  |  |   |   |
| <b>Prepare von/Prepare by:</b><br><i>Seth Cai</i>   | <b>Check von/Check by:</b><br><i>Ian Luo</i>   | <b>Genehmigt von/Approved by:</b><br><i>Jesse Liu</i> |   |
| Seth Cai/ Project Engineer  | Ian Luo/ Director  | Jesse Liu/ Manager                                    |   |
| <p><b>Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens.</b></p> <p><i>Remark: The duplication of this report or parts of it and its use for advertising purposes is only allowed with permission of the testing laboratory. This report contains the result of examination of the product sample submitted by the applicant. A general statement concerning the quality of the products from the series manufacturer cannot be derived therefore.</i></p> |  |   |   |

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## 1. Test Method

|   |   |
|---|---|
| Ambient Condition.....  | 24.9°C  |
| Number of hours operated prior to Measurement .....           | (h): 0h   |
| Stabilization time .....                                      | (h): 1h/time  |
| Orientation(burning position) of SSL product during test..... | Down  |
| Test Item.....  | Room Temperature Initial Measurement $T_{b,0}$ (67.3°C)   |
| Test Method .....   | The sample was tested according to the IES LM-79-2008.<br><br>Photometric paramters were measured using an integrating sphere, a spectroradiometer and software. The ambient temperature condition inside the sphere was maintained at 25° C $\pm$ 1°C. The sample measurements were made using a spectroradiometer connected by a fiber optic cable and detector through the detector port of the integrating sphere. The sample was operated at rated voltage and was stabilized before measurement. Chromaticity coordinates, correlated color temperature and color rendering index were calculated from the spectral radiant flux measurements taken at 1 nm intervals over the range of 380 to 780 nm.  |
| Test Item.....  | Measurement at First Elevated Temperature<br>$T_{b,1}$ =89.8°C  |
| Test Method.....  | The sample was tested with a device that controls the temperature $T_b$ of the UUT. Photometric paramters were measured using an integrating sphere, a spectroradiometer and software. The ambient temperature condition inside the sphere was maintained at 50° C $\pm$ 1° C. The sample measurements were made using a spectroradiometer connected by a fiber optic cable and detector through the detector port of the integrating sphere. The sample was operated at rated voltage and was stabilized before measurement. Chromaticity coordinates, correlated color temperature and color rendering index were calculated from the spectral radiant flux measurements taken at 1 nm intervals over the range of 380 to 780 nm.   |
| Test Item.....  | Measurement at Second Elevated Temperature $T_{b,2}$ =77.6 °C   |
| Test Method.....  | The sample was tested with a device that controls the temperature $T_b$ of the UUT, so that $T_b$ reaches no lower than $T_{b,0}$ = 67.3°C. Photometric paramters were measured using an integrating sphere, a spectroradiometer and software. The ambient temperature condition inside the sphere was maintained at 40° C $\pm$ 1° C. The sample measurements were made using a spectroradiometer connected by a fiber optic cable and detector through the detector port of the integrating sphere. The sample was operated at rated voltage and was stabilized before measurement. Chromaticity coordinates, correlated color temperature and color rendering index were calculated from the spectral radiant flux measurements taken at 1 nm intervals over the range of 380 to 780 nm. |

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## 2. Product Information

|                                   |                     |
|-----------------------------------|---------------------|
| Product description.....:         | LED Street Light    |
| Model Number.....:                | MSL-F240            |
| Rated Inputs.....:                | AC100-277V, 50/60Hz |
| Rated Power.....:                 | 240W                |
| Declared CCT.....:                | 6000K               |
| LED Manufacturer.....:            | LUMILEDS            |
| LED Model.....:                   | L150-6580502400000  |
| Date of Receipt Samples.....:     | June 13, 2025       |
| Quantity of Receipt Samples.....: | 1 unit              |

## 3. Test equipment list

| Description                  | Equipment ID | Model    | Calibration Date | Calibration Due Date |
|------------------------------|--------------|----------|------------------|----------------------|
| 2m Integrating Sphere System | SLCS-S-312   | HAAS2000 | 2025/05/27       | 2026/05/26           |
| Digital Power Meter          | SLCS-S-309   | PF9810   | 2025/05/27       | 2026/05/26           |
| AC Testing Power Source      | SLCS-S-310   | DPS1005  | 2025/05/27       | 2026/05/26           |
| Standard Lamp                | SLCS-S-313   | DC24/50W | 2025/06/02       | 2026/06/01           |

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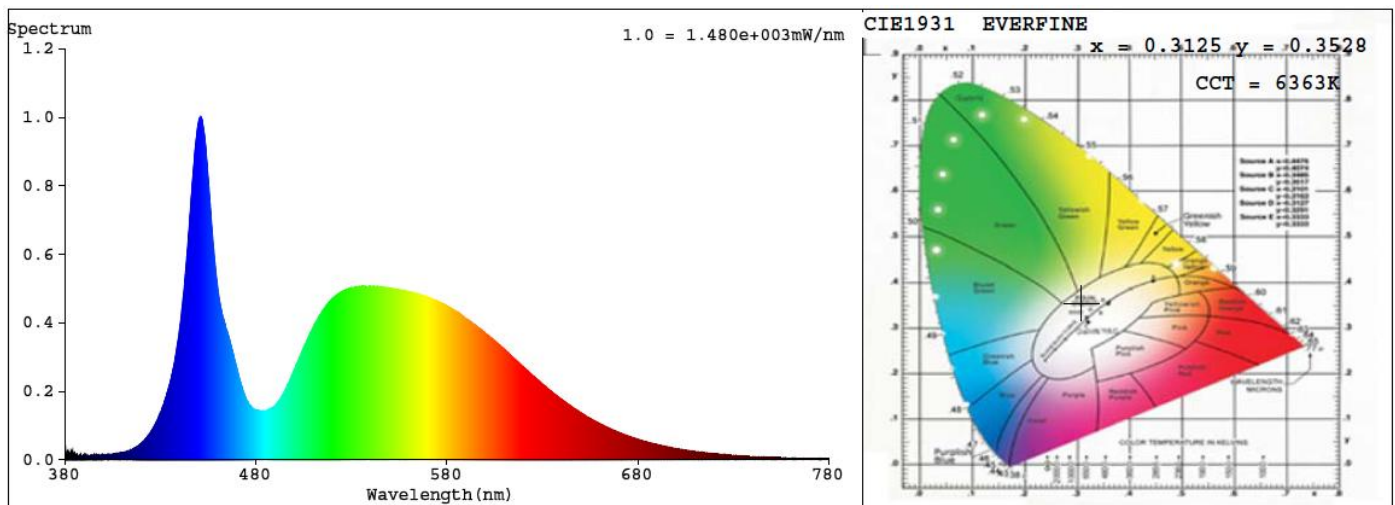


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#### 4. Test results

|  | Room Temperature Initial<br>Measurement<br>Tb,0 | First Elevated<br>Temperature<br>Tb,1 =89.8°C | Second Elevated<br>Temperature<br>Tb,2 =77.6°C |
|--|---|---|--|
| Ambient<br>(°C)                          | 24.9  | 50.1  | 40.2   |
| Measured<br>Temperature of Tb<br>(°C)    | 67.3  | 89.8  | 77.6   |
| Input Power<br>(W)                       | 242.8   | 241.8   | 242.2  |
| Input Voltage (V)                        | 230.05  | 230.01  | 230.01   |
| Input Current (A)                        | 1.098   | 1.095   | 1.096  |
| Luminous Flux (lm)                       | 42858   | 42731   | 42835  |
| Luminous Efficacy<br>(lm/W)              | 176.52  | 176.72  | 176.86   |
| CIE Chromaticity<br>(u')                 | 0.1891  | 0.1892  | 0.1892   |
| CIE Chromaticity<br>(v')                 | 0.4805  | 0.4797  | 0.4800   |
| Correlated Color<br>Temperature<br>(CCT) | 6363  | 6395  | 6385   |

#### 5. Spectrum



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6. Photo of sample

Photo document

Photos of MSL-F240





----- End of test report -----

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