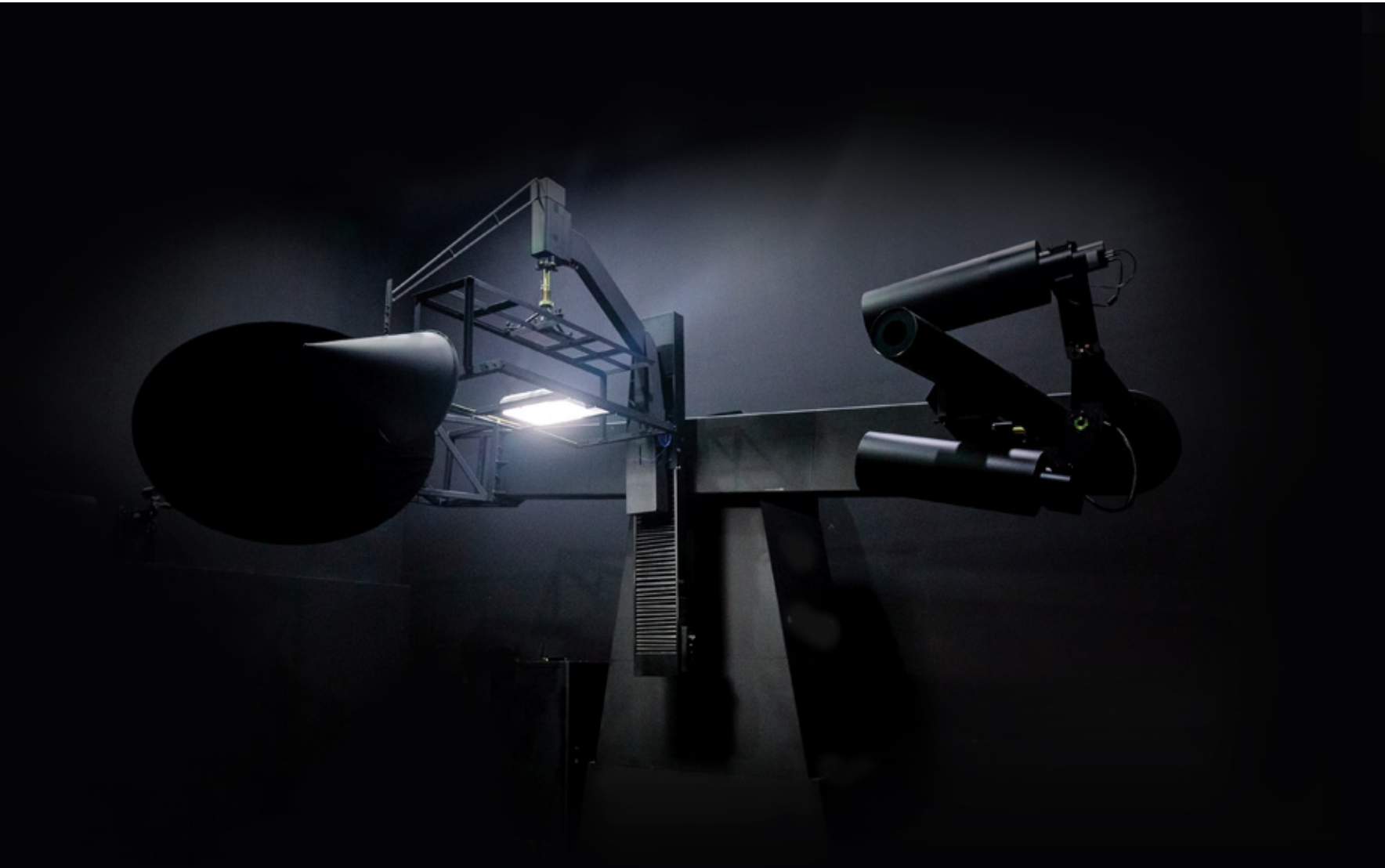


AW Rostamani Lumina Laboratory, UAE

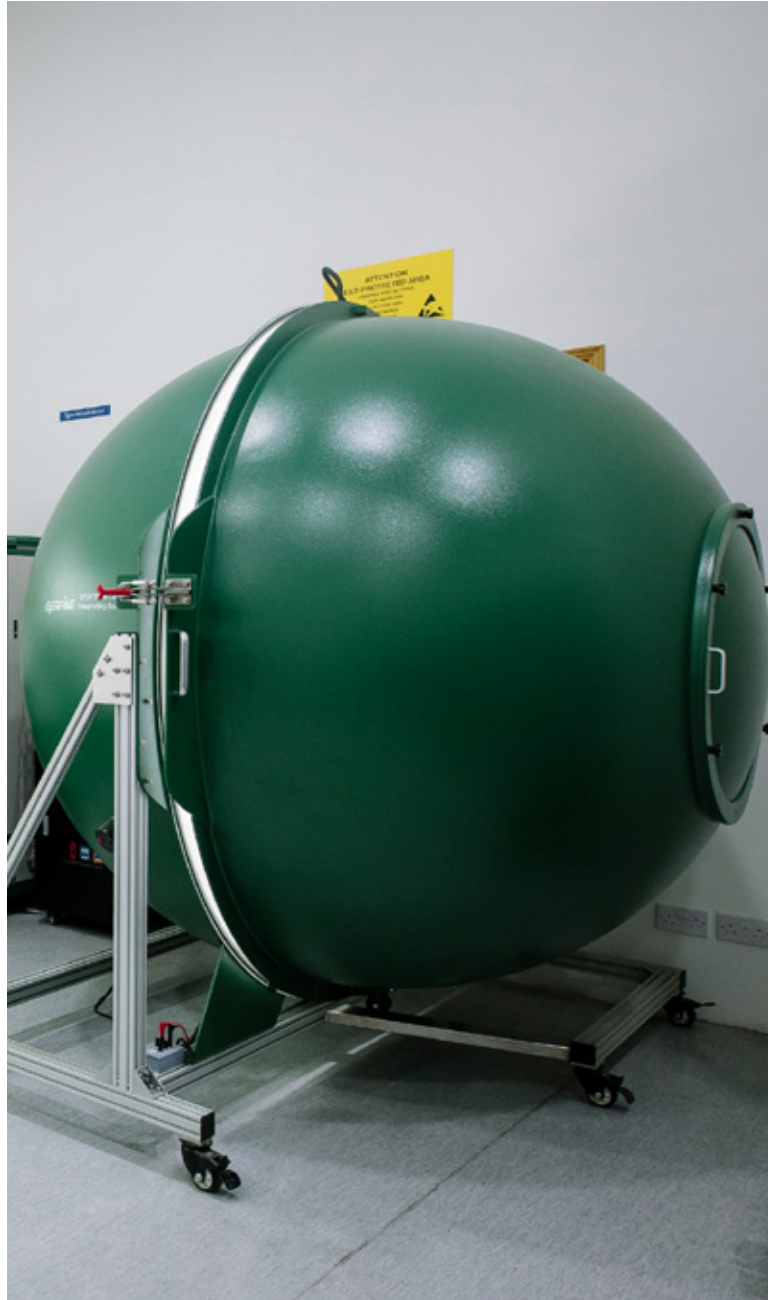
ISO/IES 17025:2017 Accredited Laboratory From EIAC For Testing of LED Luminaires



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Lumina

Laboratory

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About Us

AW Rostamani Lumina testing laboratory is an ISO/IEC 17025:2017 accredited photometry testing laboratory and provides testing service for solid-state lighting fixtures using our state-of-the-art Type-C Goniophotometer, Integrating Sphere and Accelerated Aging Test Machine.

The world class equipment enables us to perform tests on a wide variety of fixtures utilizing the latest LED technologies.

The laboratory is accredited from EIAC (Emirates International Accreditation Center) to perform the tests in accordance to IES (Illuminating Engineering Society) approved methods.



Laboratory

Accredited Test Methods

IES LM 79-08

Approved Method: The Electrical and Photometric Measurements of Solid-State Lighting Products

Measurements

- Total luminous flux (lumens)
- Luminous efficacy (lm/W)
- Luminous Intensity (candelas)
- Chromaticity coordinates
- Correlated color temperature (CCT)
- Color rendering index (CRI)
- Spectral distribution measurements
- Luminous intensity distributions
- Electrical measurements;
 - Input voltage (V)
 - Input current (A)
 - Input power (W)
 - Frequency (Hz)
 - Power factor.

IES LM 82-12

Approved Method: Characterization of LED Light Engines and LED Lamps for Electrical and Photometric Properties as a Function of Temperature

Measurements

- LED Temperature monitoring point (Tb)
- Driver temperature monitoring point (Td) (If applicable)
- Input power (W)
- Input voltage (V)
- Input Current (A)
- Luminous flux (lm)
- Luminous efficacy (lm/W)
- CIE chromaticity (x,y)
- Correlated color temperature (CCT)

EIAC Accredited Testing Scope:

Testing Standards

- IES LM-79-08
- IES LM-82-12

Test Description

- Electrical & Photometric Measurement
- Electrical & Photometric Measurement at different Temp.

Lead Time

- 5 Working Days
- 5 Working Days

EIAC Accredited Testing Scope:

Partial Testing, As per Request

- Luminaire Lumen
- Luminaire Efficacy
- Luminaire Beam Angle
- Luminaire CCT
- Luminaire CRI
- Luminaire Power
- Luminaire Power Factor
- Luminaire Driver Temperature
- LED Cathode Temperature

Test Description

- Luminaire Total Lumen Measurement
- Luminaire Lumen/Watt Measurement
- Luminaire Light Distributions Measurement
- Luminaire Color Temperature Measurement
- Luminaire Color Rendering Measurement
- Luminaire Power Measurement
- Luminaire Power Factor Measurement
- Measurement of LED Driver
- Measurement of LED Temperature @ Cathode Point

Lead Time

- 3 Working Days
- 3 Working Days
- 3 Working Days
- 3 Working Days
- 3 Working Days
- 3 Working Days
- 3 Working Days
- 3 Working Days

Non-EIAC Accredited Testing Scope:

Partial Testing, As per Request

- High Voltage Test
- Insulation Resistance Test
- LED Driver Efficiency Test

Test Description

- Check the Electrical Strength of Luminaire
- Check the Insulation Resistance of Luminaire
- Check the Efficiency/Performance of LED Driver

Lead Time

- 3 Working Days
- 3 Working Days
- 3 Working Days



Laboratory

Measurement Equipment



Photometric Measurements

- Type C Goniophotometer
- Spectroradiometer
- Accelerated Aging Test Machine

Electric Measurements

- Electrical safety Tester
- Leakage current Tester

Electric Measurements

- Power Analyzer
- DC Electric Load
- Oscilloscope
- Digital Multimeter
- AC Power Source
- Regulated Power Supply



Type C – Goniophotometer

The GO-R5000 full-field goniophotometer has a high measuring speed with excellent accuracy and configuration. It is configured to perform near field and far field measurements, all on the same instrument and at the same time.

Measurement Parameters

Photometric Parameters

- Luminous flux (lumens)
- Luminous efficacy (lm/W)
- Luminous intensity (candelas)
- Chromaticity coordinates (x, y)
- Correlated color temperature (CCT)
- Color Rendering Index (Ra)
- Luminous intensity distribution curve
- Spectral power distribution
- Iso-Illuminance diagrams
- Isocandela diagrams
- Luminous intensity data

Electric Parameters

- RMS AC voltage (V)
- RMS AC current (A)
- Input AC power (W)
- Input voltage frequency (Hz)
- Power factor (Pf)



Integrating Sphere

Integrating sphere spectroradiometer provides the fastest means of measuring the total light output of solid-state lights. Our array spectrometer can capture the spectrum (380-780nm) in a flash.

All models in the range support both 2π and 4π flux measurements in accordance with IES LM79-08

Measurement Parameters

Photometric Parameters

- Luminous Flux
- Luminous efficacy
- Spectral Power Distribution
- Chromaticity Coordinate
- Correlated Color Temperature
- Standard deviation of color matching
- Peak Wavelength
- Dominant Wavelength
- Spectral Half Width
- Colorimetric Purity

Electric Parameters

- RMS AC voltage (V)
- RMS AC current (A)
- Input AC power (W)
- Input voltage frequency (Hz)
- Power factor (Pf)



Accelerated Aging Test Machine

This machine is specially designed to measure the electric, photometric and color parameters from -30°C up-to $+100^{\circ}\text{C}$ temperatures. The machine is equipped with array spectroradiometer, multifunction photometer and wide range ambient temperature-controlled chambers to meet the requirements of IES LM-82-12.

Measurement Parameters

- LED Temperature monitoring point (T_b)
- Driver temperature monitoring point (T_d) (If applicable)
- Input power (W)
- Input voltage (V)
- Input Current (A)
- Luminous flux (lm)
- Luminous efficacy (lm/W)
- CIE chromaticity (x, y)
- Correlated color temperature (CCT)



Electrical Test Equipment

Electrical Measurement Parameters

Input Measurements

- Input voltage (V)
- Input current (A)
- Input power (W)
- Power factor (Pf)
- Frequency (Hz)
- Harmonics distortion (THD)
- Inrush current (A)
- Standby power (W)
- Endurance test

Output Measurement Functions

- Out Voltage (V)
- Out current (A)
- Out power (W)
- Over current Protection
- Short Circuit Protection

Safety Test Equipment

Measurement Parameters

- Electrical strength test
- Leakage current test



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