

# **COMPANY PROFILE**



www.rasmiled.com



### **CONTENTS**

ABOUT US, OUR HISTORY & LOCATIONS	P2 - P3
RASMI STRENGTHS, SERVICES & CLIENTS	P4 - P5
LED RETROFIT	P6 - P7
KEY CLIENTS & PARTNERS	P8
PRODUCT RANGE	P9 - P11
INHOUSE TESTING EQUIPMENT & PRODUCTION	PI2 - PI3
THIRD PARTY CERTIFICATES	PI4 - PI5
LIGHTING INDUSTRY ASSOCATION (LIA)	PI6 - PI7
BSI ISO 9001 CERTIFICATE	P18
DUBAI TRADE LICENSE	P19
LIST OF PROJECTS	P20 - P53
LED LIGHTING TERMINOLOGY	P54 - P55



### **ABOUT US**



Established in 1974, Rasmi LED Lighting is a world-class designer and manufacturer of LED luminaires, dedicated to producing the finest quality products. We provide a comprehensive LED lighting solutions to all our customers and clients all over the world, mainly in the UK, Europe, and the Gulf region.

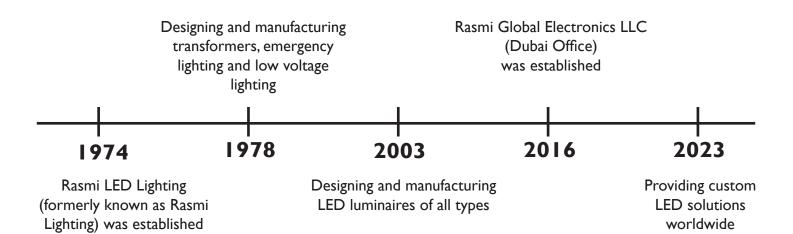
We have a full range of LED lighting products from indoor, outdoor, facade landscape lighting to street, and tunnel lighting. We design and develop all our products in our R&D lab in the UK, with a team of lighting specialist and engineers who have the technical expertise as well as long years of experience in the lighting industry.

We also have a manufacturing unit in Dubai, UAE where the assembly of the components from UK and Europe are processed along with quality checks and control to ensure the high quality and safety of our products. Moreover, we have the full capabilities to design and test the photometric values and parameters in accordance with the client needs. All our testing equipment and facilities are located in the UK laboratory.

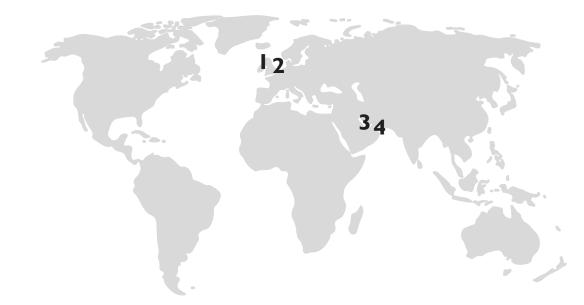
Regarding project requirements, our expertise lies in the creation and production of bespoke items, in addition to maintaining a selection of standard items. Each individual client and consultant have their distinct design in mind, and in response, we offer optimal solutions to meet their demands. Our capability to customise various kinds of lighting is extensive, as we examine and study the specifications through in-depth analysis.

Our mission is to continue to provide excellent service to our existing customers, and to grow our business by expanding into new markets. We seek to achieve this by constantly developing, adopting and incorporating new technological advances at the forefront of the LED lighting industry.

### **OUR HISTORY**



### LOCATIONS



### I. UK HEAD OFFICE

Morrison Rd, Stanely, Co. Durham, DH9 7RX, UK

### 2. UK R&D LAB, MANUFACTURING SITE

Unit 14A, Tanfield Lea, Insdustrial Estate (North), Co. Durham, DH9 9UU, UK

### **3. DUBAI OFFICE**

2803, Saeed Tower 2, Sheikh Zayed Rd, Dubai, UAE

### 4. DUBAI MANUFACTURING SITE

Warehouse no.18, 6 Street, Al Quoz Industrial I, Dubai, UAE

### **RASMI STRENGTHS & ADVANTAGES**



### **Designed in UK**

All Rasmi LED luminiares are designed and manufactured in our R&D lab and manufacturing site in the UK, with ISO9001 certification under BSI. Moreover, due to an influx of demand in the Gulf region, we have set up our very own manufacturing site in Dubai, where most of the assembly is processed.

#### 50+ Years of Expertise

Rasmi has a team of lighting engineers and specialist who are fully skilled and have the technical experience and expertise to design and customise high quality LED luminaires. With our experience and expertise, we are able to provide clients with comprehensive and bespoke LED solutions.

### **Bespoke Design & Customisation**

Rasmi specialises in providing bespoke LED solutions to our clients. Since every client requirements vary, we focus on meeting the requirements and fulfilling their needs rather than proposing our own standard products. Whatever design client needs, we have the capabilities to design and manufacture them and this aspect puts us at the forefront among all LED manufacturers and suppliers.

#### In-house testing and manufacturing capabilities

Our In-house laboratory is fully set up with testing equipment, which allows us to test every product that we have designed to ensure the quality and safety of our products. These in-house tests are available at all times upon special request.

### Third-party certified from the LIA (Lighting Industry Association)

Rasmi has a set of luminaires, which are third-party certified by the LIA (Lighting Industry Association) from the UK. LIA is the largest independent test laboratory in Europe dedicated to lighting. It offers a wide range of UKAS Accredited tests to help meet the required product compliance. Third-party certificates and test reports can be provided upon special request.

#### **Retrofit & Energy saving solutions**

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As global energy crisis continues, Rasmi offers LED Retrofit solutions to replace the obsolete, power-consuming lights into energy efficient LED luminaires. We conduct energy audit and survey, provide energy savings calculatio report, and special LED lighting desgined for retrofit projects.



# **OUR SERVICES**





CUSTOMISATION









RASMI ELECTRONICS LTD UK TEL: +44(0) 1207 288700

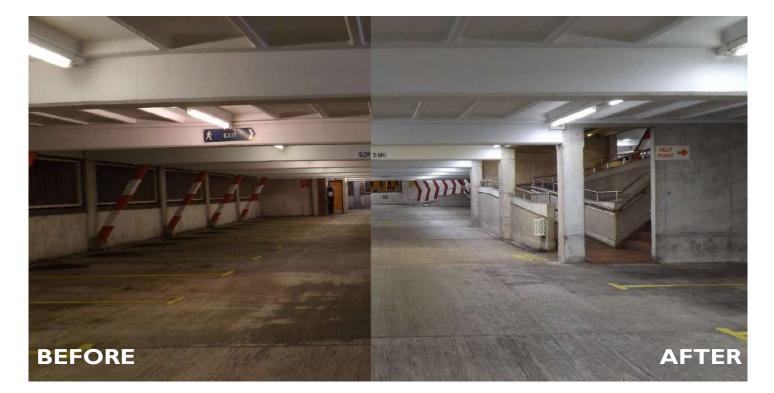
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5



### LED RETROFIT & ENERGY SAVINGS



An LED retrofit refers to the process of upgrading or replacing existing lighting fixtures, such as fluorescent or incandescent lights, with more energy-efficient and longer-lasting LED lights. The term "retrofit" implies that the new LED lighting technology is being integrated into an older or existing lighting system without the need for a complete overhaul or replacement of the entire fixture.

Rasmi UK offers several benefits of LED retrofitting as follows:

6

I. Energy Efficiency: LED lights are highly energy-efficient and consume significantly less electricity compared to traditional lighting technologies. This can result in substantial energy cost savings over time.

2. Longevity: LED lights have a much longer lifespan compared to incandescent or fluorescent lights. This means fewer replacements and reduced maintenance costs.

3. Reduced Maintenance: Because of their longer lifespan, LED lights require less frequent replacement, reducing maintenance efforts and costs associated with changing bulbs.

4. Better Light Quality: LEDs can provide improved light quality with options for various color temperatures and brightness levels. They also offer instant and flicker-free illumination.

5. Environmental Impact: LED lights produce less heat and contain fewer hazardous materials compared to traditional bulbs, making them more environmentally friendly.

6. Customisation: LED retrofitting allows for flexibility in designing lighting systems to meet specific needs, such as color temperature adjustments, dimming capabilities, and more.

7. Government and Utility Incentives: Many governments and utility companies offer incentives or rebates to encourage the adoption of energy-efficient technologies like LED lighting.

Rasmi fully acknowledges the fact that LED retrofitting is a cost-effective and sustainable way to upgrade lighting systems in residential, commercial, and industrial settings, leading to energy savings, reduced maintenance costs, and improved lighting quality.



# LED RETROFIT: CASE STUDY

**PROJECT:** SAEED TOWER 2, DUBAI, UAE **SCOPE:** LED RETROFIT OF SAEED TOWER & CAR PARKING **COMPLETION:** 2019 **TYPES:** 12 DIFFERENT LIGHTS / QTY: 2049 PCS **ENERGY SAVINGS:** 76%



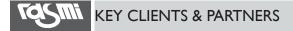
Rasmi successfully executed a comprehensive LED retrofit initiative for Saeed Tower 2, including both the main building and its accompanying car parking building. Our involvement spanned the entire project lifecycle, from the initial energy savings assessment to the final stages of design, manufacturing, and installation.

To evaluate the project's scope in detail, Rasmi's proficient technical team conducted a thorough energy savings audit. This includes an in-depth review of existing fixtures throughout the tower, a comprehensive analysis of distinct areas within the structure, an examination of operational hour variations, and a meticulous assessment of lighting functionality.

Subsequently, Rasmi's specialised research and development laboratory, situated in the UK, engineered bespoke LED lighting products. These incldued a variety of LED lighting products, including spotlights, downlights, parking lights, bulkheads, and floodlights. Each product was manufactured specifically to harmonise with the tower's unique specifications, including cutout dimensions, spatial ambiance, and more.

Our energy audit calculations predicted an impressive 76% reduction in energy consumption and bills from the transition of outdated lighting to advanced LED systems.

As of the year 2023, all retrofitted LED luminaires continue to operate impeccably, with no reported defects. Notably, our client has validated substantial energy bill savings of 76% or more, expressing utmost satisfaction with the achieved outcomes.



### **KEY CLIENTS & PARTNERS**











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هيئة كهرباء ومياه الشارقة Sharjah Electricity & Water Authority







HYUNDRI ENGINEERING & CONSTRUCTION

TRIDONIC

Foster + Partners





CREE 🔶





PHILIPS





Khadmat for Building Materials and Trading Co. WLL





MEAN





MONACO GROUP



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**BK Gulf LLC** 

www.rasmiled.com lighting@rasmi.com

### **PRODUCT RANGE**

### **CUSTOMISED & BESPOKE PRODUCTS**



Rasmi UK has a wide range of products from indoor lighting to outdoor lighting that covers various requirments and specifications from clients. We utilise our LED light sources from internationally renowned Chip manufacturers such as Philips Lumileds and CREE. Moreover, we manfucture our very own LED drivers that guarantees safe and long lasting operations of our Luminaires. In case clients require another type of drivers, we offer LED drivers from Rasmi, Tridonic, Philips and Mean Well, and all our lights are fully compatible with LED drivers from these brands.

Rasmi UK specialises in customisation of LED products that fully comply with any type of requirements to satisfy the needs of our clients. Not only can the client select specific brands for the LED chips and drivers, but also they can also modify the aesthetics, design, finishing, colour, material, and dimenions of our products. This special quality gives us an edge and advantage over other lighting manufacturers who focus on providing their own standard items, which are not modifiable or customisable

In the realm of LED luminaire design, the importance rests upon managing the working temperatures and heat dissipation. The design must control the efficient dissipation of heat to prevent overheating, potential malfunctions, or hazardous blowouts. This becomes particularly crucial for ensuring safety. Moreover, for outdoor lighting, the design must demonstrate resilience against harsh weather conditions, including the heat characteristic of the Gulf region. Consequently, attention to shaping the luminaire's heatsink is essential. Rasmi takes much pride in its heatsink designs, renowned for being among the best in the world.

Such customisation for bespoke products require several different skills and equipment such as CNC machining, service, moulding, 3D printing, etc. Moreover, it requires constant communication between our lighting designers and the client in order to fully grasp the idea and the concept of what the client needs.

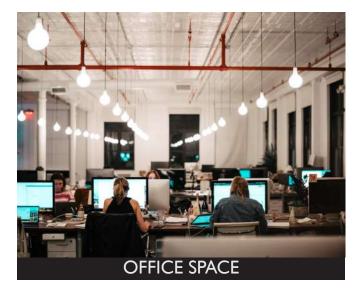


# **AREAS OF APPLICATION: INDOOR**













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## **AREAS OF APPLICATION: OUTDOOR**













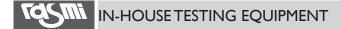
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11



### **IN-HOUSE TESTING EQUIPMENT**

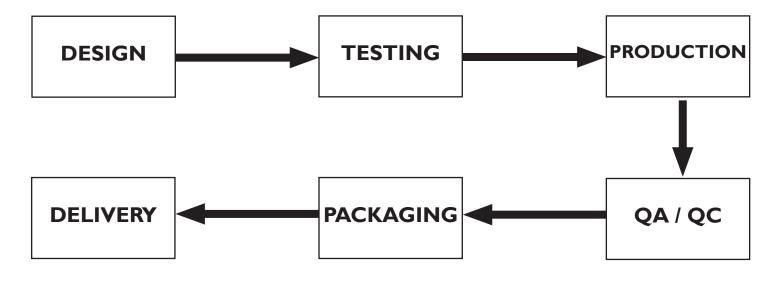


All Rasmi LED luminiares are designed and tested in our R&D lab and manufacturing site in the UK. Our photometric testing facilities include a 2m integrating sphere with a high speed spectrocolorimeter detector and a 10m goniophotometer chamber.

The integrating sphere measures the total light output (flux or lumens) of a lamp or luminaire as well as the colour spectrum emitted. The goniophotometer allows accurate beam pattern measurement of a luminaire by rotating the luminaire about its axes and recording beam intensity. These measurements can be presented in a visual format, such as a polar curve diagram, or combine the data from the integrating sphere into files used for lighting design such as IES or Eulumdat formats.

Extensive tests are made on new designs to check housing temperature rise and LED junction temperature, to minimise colour shift and lumen depreciation over time. Mechanical aspects are tightly controlled to ensure finished products meet design intention and criteria.

# **PRODUCTION METHODS**



NO.	ТҮРЕ	BRAND	STANDARDS
I	LED CHIPS	PHILIPS LUMILEDS CREE	
2	LED DRIVERS	RASMI, TRIDONIC, PHILIPS, MEAN WELL	
3	РСВ	RASMI	& LOCAL GOV'T STANDARS
4	HEATSINK, DIFFUSER, CABLES, CONNECTORS	RASMI	

- Design engineers will design luminaires complying with client's specifications and international & local government standards
- Testing engineers will go through a variety of tests to ensure the full operation and safety of the products
- Production team will manufacture and assemble different components of the LED luminaires as follows:
  - I. LEDs will be acquired from Philips Lumileds and Cree
- 2. LED drivers will be from Rasmi, Tridonic, Philips and Mean Well.
- 3. Heatsinks, diffusers, cables, connectors, etc will be designed by CNC machining, service, moulding, 3D printing meeting all the necessary IEC and local government standards.
- QA/QC procedures will be performed between the testing engineers and the production team before the release of the products



### THIRD PARTY CERTIFICATES



All Rasmi luminaires proposed and supplied for this project can be third-party certified by the Lighting Industry Association (LIA) from the UK upon request. LIA is the largest independent test laboratory in Europe dedicated to lighting accreidted by UKAS. After a series of tests according to international standards, all Rasmi luminaires passed the test to comply with project specifications and to function and operate perfectly under that climate conditions in the Gulf region. Moreover, third-party reports from TUV SUD and other third-party laboratories can be provided upon request.



Some of our Rasmi luminaires are approved by government entities such as Abu Dhabi Quality & Conformity Council (ADQCC) from the UAE, and Ashghal from Qatar. Also, Rasmi is currenty in process of receiving approvals from SASO for Kingdom of Saudi Arabia (KSA). These entities require complete and comprehensive testing and standards for all type of luminaires. Thus, the examination and review of such products are rigorous and extremely thorough. Since all Rasmi luminaires abide by and comply with international standards, we can proceed for certification and approvals from such government entities upon special request from client.

# LIST OF TEST REPORTS & CERTIFICATES



- LM-79 Test Report
- LM-80 Report
- LM-82 Test Report
- -TM-21 Test Report
- Ageing Test
- General Temperature Test
- IP Test Report
- IK Test Report
- Vibration Test Report
- Photometric & Electrical Test
- Photobiological Test Report
- Copper Content Report
- Optical Control Evidence Report
- Visual Inspection Test

# LIGHTING INDUSTRY ASSOCIATION (LIA)



The Lighting Industry Association (LIA) is Europe's largest trade association for lighting equipment professionals. This includes lighting manufacturers, suppliers, retailers, wholesalers, designers and all professionals active in the UK lighting market. It is a well-established and respected trade association based in the United Kingdom, focused on serving the lighting industry. It represents the interests of manufacturers, suppliers, and businesses involved in the lighting sector. The LIA plays a significant role in promoting excellence, innovation, and sustainability within the industry.

For several years, Rasmi has kept a strong partnership with the LIA for the purpose of subjecting our LED lighting products to rigorous testing and validation in compliance with European and International standards. Our commitment to producing top-notch quality and our collaborative engagement with the LIA have granted us a membership within the association to be part of one of the leading LED manufacturers in the world.

Key functions and activities of the Lighting Industry Association (LIA) typically include:

I. Standards and Regulations: The LIA is actively involved in developing and promoting industry standards and regulations related to lighting products and technologies. This helps ensure that lighting products meet safety, performance, and energy efficiency requirements.

2. Education and Training: The association provides education and training programs to enhance the knowledge and skills of professionals working in the lighting industry. This may include courses on lighting design, product testing, and regulatory compliance.

3. Research and Development: The LIA often engages in research and development initiatives to advance lighting technologies, improve energy efficiency, and address industry challenges.

4. Networking and Collaboration: The association serves as a platform for networking and collaboration among industry stakeholders. It provides opportunities for members to connect, share knowledge, and stay updated on industry trends.

5. Advocacy: The LIA advocates for the interests of the lighting industry with government bodies, regulatory agencies, and other relevant organizations. This includes participating in discussions on policy, sustainability, and market trends.

6. Certification and Verification: The LIA may offer certification or verification programs to assess the performance and safety of lighting products. These programs can help consumers and businesses make informed choices when selecting lighting solutions.

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### LIA MEMBERSHIP

theLIA Member of This is to certify that Rasmi LED Lighting LTD is a Full Member of The Lighting Industry Association Matt Carpenter President Membership number: 63463532 Date of issue: 01/01/2023 Expiry date: 31/12/2023 The Lighting Industry Association is the trade association serving the UK lighting industry and its supply chain. It promotes best practice, shares information and knowledge and provides a wide range of services for the members and the wider lighting industry www.thelia.org.uk 000 The Lighting Industry Association Limited, Iford Park 7, Telford, Shropshire, UK TF3 3BQ gistered in England No. 7850441

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## **BSI ISO 9001 CERTIFICATE**



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RASMI ELECTRONICS LTD UK

TEL: +44(0) 1207 288700

### **DUBAITRADE LICENSE**

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### **UK FACTORY ACCPETANCE TEST**



WITH SEWA ENGINEERS



RASMI FACTORY IN UK

The Factory Acceptance Test (FAT) is a comprehensive procedure that evaluates equipment at various stages of assembly, ensuring alignment with design specifications both during and postassembly. This meticulous assessment confirms that the equipment is constructed and functioning precisely as intended. The FAT process focuses on validating the seamless operation of components and controls according to the equipment's designated functionality. As the term suggests, this assessment takes place within the confines of the manufacturing facility. The primary goal of FAT is to identify any discrepancies or non-conformities, establishing a structured protocol for their resolution. Any deviations or irregularities detected during testing are meticulously documented within a problem report, and corrective measures are implemented before the equipment is dispatched.

Custom-tailored to diverse system types, the FAT involves a series of tests executed prior to final installation at the intended plant. While not an obligatory step, adherence to the standard IEC 61511 recommends the execution of FAT, particularly in instances where the application software of the logic solver is notably intricate or the safety instrumented system architecture incorporates redundant configurations. Thoroughness and transparency are imperative in conducting a FAT, as a subpar or hurried assessment could result in the oversight of non-conformities that might only become apparent after equipment installation—potentially disrupting project timelines.

For our significant projects, a multitude of Factory Acceptance Tests have been undertaken. Distinguished engineers and auditors hailing from government bodies and reputable light consulting firms have conducted comprehensive assessments, spanning visits to both our manufacturing facility and our headquarters in the UK. During these visits, scrupulous inspections encompassed the entire spectrum of manufacturing and quality assurance processes. Rigorous evaluations extended to our research and development, production, and testing facilities. Furthermore, real-time, on-site testing of our products was systematically conducted to validate electrical and photometric attributes. We take pride in confirming that every visit to our UK factory has culminated in approvals, underscoring our commitment to excellence.

# OUR PROJECTS 2023







#### **PROJECT: LED LIGHTING FIXTURES FOR LUSAIL PLAZA TOWERS 1,2 & 3,4**

SCOPE OF WORK: BOH LIGHTING, CRYSTAL LIGHTING START DATE: FEB 2022 COMPLETION DATE: SEP 2022 (BOH), ONGOING - APR 2023 (CRYSTAL)





**CLIENT:** LUSAIL REAL STATE DEVELOPMENT COMPANY P.O. Box 26060, Doha, Qatar

### **Foster + Partners**





**CONSULTANT:** FOSTERS & PARTNERS Riverside, 22 Hester Road, London, SWII 4AN, UK

#### MAIN CONTRACTOR FOR LUSAIL TOWERS 1&2: MIDMAC CONTRACTING COMAPNY WLL

New Slata Interchange, C Ring Road, Doha, Qatar. P.O.Box: 1758

MAIN CONTRACTOR FOR LUSAIL TOWERS 3&4: HYUNDAI ENGINEERING & CONSTRUCTION 101-81-16293, 03058 Hyundai Bldg., 75, Yolgok-ro, Jongno-gu, Seoul,

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SHARJAH SUSTAINABLE CITY SHARJAH, U.A.E.

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#### **PROJECT: LED LIGHTING FIXTURES FOR SHARJAH SUSTAINABLE CITY**

### SCOPE OF WORK: INDOOR / OUTDOOR LIGHTING, STREET LIGHTING START DATE: NOV 2022 COMPLETION DATE: ONGOING - APR 2023











**CLIENT:** SHARJAH SUSTAINABLE CITY Al Rahmaniyah, P.O. Box 85595, Sharjah, UAE

**CONSULTANT:** ARIF & BINTOAK CONSULTING Zaa'beel St, Al Karama, Dubai, UAE

# MAIN CONTRACTOR

P.O.Box : 35758, Dubai, UAE

SUBCONTRACTOR ROYAL RITZ INTERIORS & MEP Diamond Business Center I, Dubai, UAE

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SHARJAH-KHOR FAKKAN TUNNELS U.A.E.

### PROJECT: LED TUNNEL LIGHTING FOR SHARJAH-KHORFAKKAN TUNNELS 10 TUNNELS IN TOTAL

SCOPE OF WORK: TUNNEL LIGHTING START DATE: JAN 2019 COMPLETION DATE: MAR 2019





**CLIENT:** SHARJAH ELECTRICITY & WATER AUTHORITY AI Khan Area, Government Departments Complex, Sharjah, UAE



**CONSULTANT:** JACOBS ENGINEERING INC Harwood Center, Dallas, Texas, USA



#### MAIN CONTRACTOR ROYAL INDUSTRIAL TECH CORP

ROYAL INDUSTRIAL TECH CORP 63, Nonhyeon-ro 63-gil, Gangnam-gu, Seoul, Republic of Korea



#### **PROJECT: LED UNDERWATER LIGHTING FOR APPLE SHOWROOM**

SCOPE OF WORK: UNDEWATER TUNNEL & CASCADE LIGHTING START DATE: JUL 2020 COMPLETION DATE: DEC 2020





**CLIENT:** APPLE INC. Apple Park Way, Cupertino, California, USA







**CONSULTANT:** AECOM Dallas, Texas, USA

#### MAIN CONTRACTOR AL NASR CONTRACTING COMPANY LLC P.O. Box 2436, Abu Dhabi, UAE

SUBCONTRACTOR GHESA INGENERIA Y TECNOLOGIA Magallanes 3, 28015 Madrid, Spain

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#### **PROJECT: RETROFIT OF LIGHT FIXTURES FOR DUBAI FESTIVAL CITY MALL**

SCOPE OF WORK: RETROFIT OF LED LIGHTING (INDOOR & OUTDOOR) START DATE: APR 2018 COMPLETION DATE: NOV 2018 ENERGY SAVINGS: 76%







**CLIENT:** DUBAI FESTIVAL CITY Dubai Festival City, Dubai, UAE

**CONSULTANT:** AL FUTTAIM ENGINEERING COMPANY LLC Airport Road, Al Garhoud, Dubai, UAE



#### MAIN CONTRACTOR

AL FUTTAIM ENGINEERING COMPANY LLC Airport Road, Al Garhoud, Dubai, UAE

BAHRAIN INTERNATIONAL AIRPORT AL MUHARRAQ, BAHRAIN

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#### **PROJECT: RETROFIT OF LIGHT FIXTURES FOR BAHRAIN AIRPORT**

SCOPE OF WORK: RETROFIT OF LED LIGHTING START DATE: SEP 2015 COMPLETION DATE: MAY 2016 ENERGY SAVINGS: 72%











#### CLIENT:

MINISTRY OF TRANSPORTATION & TELECOMMUNICATIONS Block 224 Building, 148 Rd, No 2403, Muharraq, Bahrain

**CLINENT REPRESENTATIVE** BAHRAIN AIRPORT COMPANY 2404, Muharraq, Bahrain

#### **DESIGN CONSULTANT**

ADP INGENIERIE Tremblay-en-France, France

#### MEP DESIGN CONSULTANT

ETEC CONSULTING ENGINEERS 182 Clemenceau Street - Beirut, Lebanon

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#### **PROJECT: LED LIGHT FIXTURE FOR T.A.G. HARMONY VILLAS**

### SCOPE OF WORK: WARDROBE & FOYER LIGHTING START DATE: MAR 2023 COMPLETION DATE: ONGOING - APR 2023





**CLIENT:** *MAJID AL FUTTAIM GROUP* Tower 1, 10th Floor, City Centre Deira Complex, Dubai



**CONSULTANT:** ATKINS Nova North, London, UK



#### MAIN CONTRACTOR

LAING O'ROURKE Bridge Place I & 2 Anchor Boulevard, Crossways Dartford Kent, UK

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ETIHAD RAIL STAGE 2&3 ABU DHABI, U.A.E

-84.

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45005

45005

SHA 56 500



#### **PROJECT: LED LIGHT FIXTURE FOR ETIHAD RAIL STAGE 2 & 3**

#### SCOPE OF WORK: WELL GLASS LIGHTING (ADQCC APPROVED) START DATE: AUG 2021 & DEC 2022 COMPLETION DATE: NOV 2021 & FEB 2023





**CLIENT:** ETIHAD RAILWAY Capital Gate, Al Falah St, Abu Dhabi, UAE



**CONSULTANT:** JACOBS ENGINEERING INC Harwood Center, Dallas, Texas, USA



#### MAIN CONTRACTOR

LARSEN & TARUBO LTD L&T House, Ballard Estate, Mumbai, Maharashtra, India





#### **PROJECT: LED LIGHT FIXTURES FOR QATAR UNIVERSITY**

#### SCOPE OF WORK: EXTERNAL LED LIGHTING START DATE: SEP 2019 COMPLETION DATE: 2019











**CLIENT:** QATAR UNIVERSITY University Street, Doha, Qatar

**CONSULTANT:** KHATIB & ALAMI Beirut, Lebanon

MAIN CONTRACTOR BOOM CONSTRUCTION COMPANY P.O. Box 22145, Doha, Qatar

RASMI PARTNER / SUPPLIER CMS TRADING Al Shareef HQ Building , Street 139, Lusail, Qatar

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#### **PROJECT: LED LIGHT FIXTURE FOR PIXEL COMMUNITY**

SCOPE OF WORK: INDOOR LIGHTING & FACADE LIGHTING START DATE: DEC 2021 COMPLETION DATE: FEB 2022





**CLIENT:** *IMKAN PROPERTIES* Mina Zayed, 434 A, Abu Dhabi, UAE



CNTC



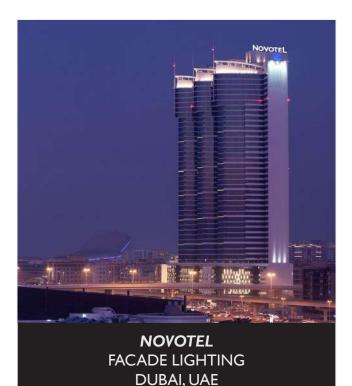
**CONSULTANT:** RAMBOLL GROUP A/S Ørestad, Copenhagen, Denmark

MAIN CONTRACTOR CNTC ROYAL CONSTRUCTION LLC Khalidiyah Street, Al Bateen, Abu Dhabi, UAE

RASMI PARTNER / SUPPLIER LUX SOLUTIONS LLC Abu Dhabi, UAE

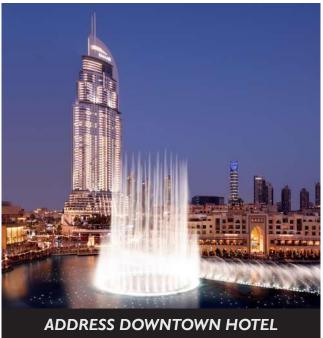
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VILLAGIO MALL INDOOR LIGHTING DOHA, QATAR



ADDRESS DOWNTOWN HOTEL UNDERWATER LIGHTING DUBAI, UAE

RASMI ELECTRONICS LTD UK

TEL: +44(0) 1207 288700



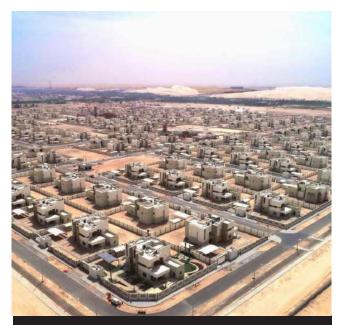
FUJAIRAH MALL INDOOR & FACADE LIGHTING FUJAIRAH, UAE

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SILICON CENTRAL LIFT LIGHTING DUBAI, UAE



21 PARKS AT SWEIHAN DEVELOPMENT OUTDOOR / LANDSCAPE LIGHTING ABU DHABI, UAE



EXPO 2020 - UZBEKISTAN PAVILION LED STRIP LIGHTING DUBAI, UAE



AZIZI RIVIERA LANDSCAPE LIGHTING DUBAI, UAE

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IKEA - DFC **INDOOR LIGHTING** DUBAI, UAE



**SAEED TOWER 2 INDOOR / OUTDOOR LIGHTING** DUBAI, UAE



SUDAN EMBASSY INDOOR LIGHTING BAHRAIN



MALL OF QATAR BOH LIGHTING DOHA, QATAR

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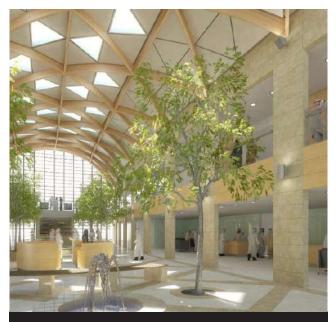
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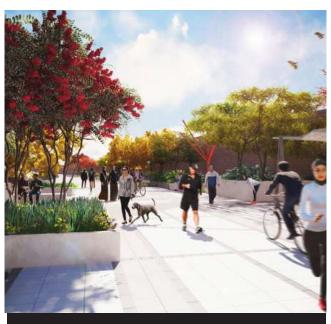




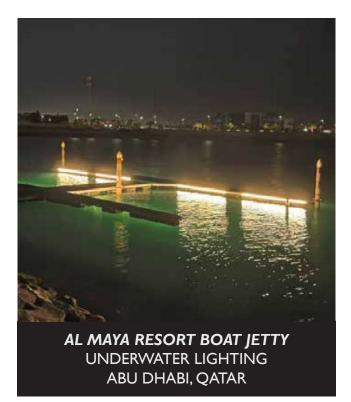
HESSA TOWER FACADE LIGHTING DUBAI, UAE



ROYAL MATERNITY HOSPITAL INDOOR LIGHTING BAHRAIN

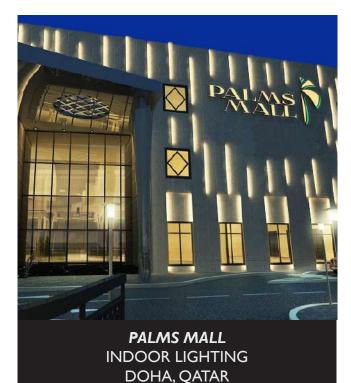


AL KHUFOOS STREET LANDSCAPE LIGHTING DOHA, QATAR



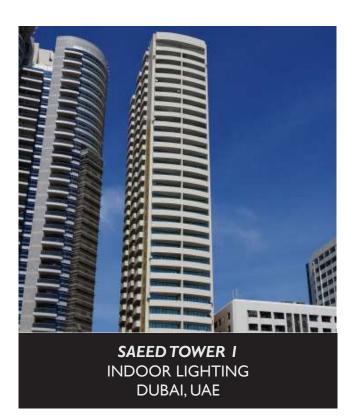
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KHALIFA PUBLIC REALM LANDSCAPE LIGHTING ABU DHABI, UAE





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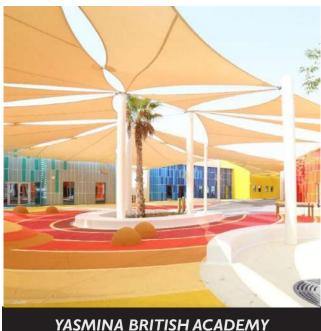
RASMI GLOBAL ELECTRONICS LLC

TEL: +971 4 357 7717

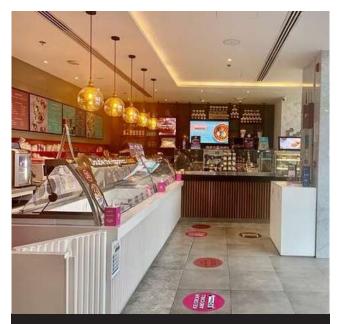
RASMI LED LIGHTING LTD

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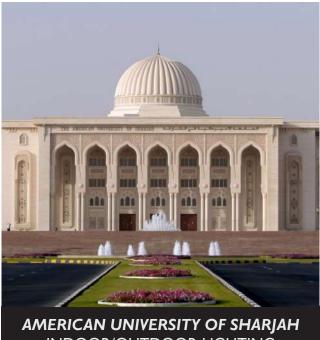




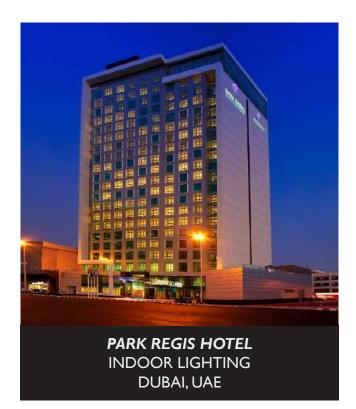
YASMINA BRITISH ACADEMY INDOOR / OUTDOOR LIGHTING ABU DHABI, UAE

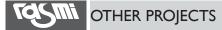


BASKIN ROBBINS UAE INDOOR LIGHTING DUBAI, UAE



AMERICAN UNIVERSITY OF SHARJAH INDOOR/OUTDOOR LIGHTING SHARJAH, UAE





S.N	Project Name	Туре	Lighting	Scope	Location			
I	Celebration Plaza Shamkha & Rahba	Commercial	Outdoor & Landscpe	Supply	Abu Dhabi UAE			
2	Sheikh Khalid Palace	Residential	Indoor & Decorative	Design & Supply	Dubai UAE			
3	SC102 Service Compound	Commercial	Indoor & Outdoor	Supply	Abu Dhabi UAE			
4	Dubai Stabels Meydan	Stables	Outdoor	Design & Supply	Dubai UAE			
5	Sharjah Public Parks	Parks	Underwater	Supply	Sharjah UAE			
6	White Crown	Tower	Indoor	Design & Supply	Dubai UAE			
7	Dubai Customs	Government	Indoor	Dubai UAE				
8	MOHAP Sharjah	Government	Indoor	Supply	Sharjah UAE			
9	UAE Military Base	Government	Outdoor	Supply	UAE			
10	Ministry of Justice	Government	Indoor	Supply	Dubai UAE			

S.N	Project Name	Туре	Lighting	Scope	Location				
П	Sharjah University	School	Indoor & Outdoor	Supply	Sharjah UAE				
12	UAQ Hospital	Hosptial	Indoor	Supply	Dubai UAE				
13	ENOC Jebel Ali	Commercial	Indoor	Supply	Dubai UAE				
14	7 Mosques (Ashghal)	Mosque	Indoor & Outdoor	Supply	Qatar				
15	Qatar Prefab Builidng Factory	Factory	Indoor	Supply	Qatar				
16	Electricity & Water Authority Substations	Government	Outdoor	Supply	Bahrain				
17	Ministry of Municipality & Agriculture	Government	Indoor	Supply	Bahrain				
18	Ministry of Work, Muncipalities Affaris and Urban Planning	Government	Indoor & Outdoor	Supply	Bahrain				
19	Kidney Dialysis Centre	School	Indoor	Supply	Bahrain				
20	Kanoo Tower	Tower	Indoor	Supply	Baharain				



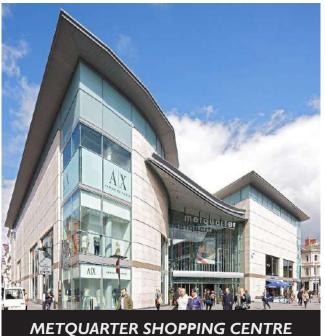
# **UK MAJOR PROJECTS**



NEWCASTLE, UK



KILMARNOCK COLLEGE INDOOR LIGHTING KILMARNOCK, UK



METQUARTER SHOPPING CENTRE INDOOR LIGHTING LIVERPOOL, UAE



## **UK MAJOR PROJECTS**



NOTTINGHAM MAGISTRATE INDOOR LIGHTING NOTTINGHAM, UK



DEVERE MOTTRAM HALL FACADE LIGHTING MOTTRAM, UK



DUMFRIES & GALLOWAY ROYAL HOSPITAL INDOOR LIGHTING DUMFRIES, UK

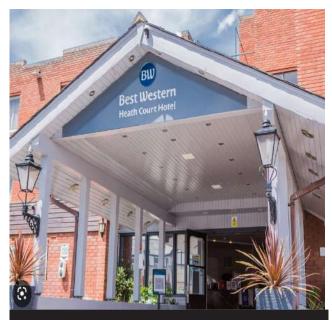


CROMPTON PLACE SHOPPING CENTRE INDOOR LIGHTING BOLTON, UK

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## **UK MAJOR PROJECTS**



BEST WESTERN HEATH COURT HOTEL INDOOR LIGHTING NEWMARKET, UK



SPAR UK INDOOR LIGHTING UNITED KINGDOM



NHS WAREHOUSES INDOOR LIGHTING UNITED KINGDOM



SALEM TUBE INTERNATIONAL LTD INDOOR LIGHTING PRUDHOE, UK

52

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S.N	Project Name	Туре	Lighting	Scope	Location			
I	Oakmed Ltd	Commercial	Indoor	Indoor Supply				
2	Dempsey Dyer Ltd	Commercial	Indoor	Supply	Pontefract UK			
3	Durham Tennis Centre	Stadium	Outdoor	Supply	Durham UK			
4	Halifax Residences	Residential	Indoor	Supply	Halifax UK			
5	Sikh Temples	Temple	Indoor	Supply	UK			
6	Lakeside Shopping Village	Commercial	Indoor	Supply	Doncaster UK			
7	5th Avenue	Commercial	Indoor	Supply	Bradford UK			
8	Precision Hairdressers	Commercial	Indoor	Supply	UK			
9	Storage 4 U Warehouses	Wareshoue	Indoor	Supply	UK			
10	Palmer & Harvey Group	Commercial	Indoor	Supply	UK			

## LED LIGHTING TERMINOLOGY

No.	Terminology	Description
I	AC	Alternating Current; Electrical current in which the flow of electric charge continually reverses direction.
2	Ambient Temperature	The surrounding temperature in which a LED light source is expected to operate
3	Beam angle	Size of the cone of light produced by lighting source measured in degrees.
4	ССТ	A measurement of the Yellowness or Blueness of a White light source based on a Kelvin number. Usually from 2700-6500K range.
5	Constant Current (CC)	Constant current refers to a type of electrical supply in which the current flowing through a circuit remains constant, while the voltage may vary based on the load's requirements.
6	Constant Voltage (CV)	Constant voltage refers to a type of electrical supply in which the voltage remains relatively stable and consistent, even as the current may vary based on the load.
7	CRI	Color Rendering Index system to rate lighting device ability to render object colors, based on a 0-100 scale.
8	DALI	A digital communication protocol and control standard used for lighting control in buildings for dimming
9	DC	Electrical current which the flow of electric charge moves in one direction only.
10	Diffuser	Optical element used to mix light ray to improve uniformity of light.
П	DMX	Digital Multiplexing widely used for communication protocol in the entertainment and lighting industries
12	Driver	Auxiliary device(s) needed to operate and vary the intensity of light output from LED lamp source(s) by regulating the voltage and current powering the source.
13	Heat dissipation	This is the transition of thermal energy form a hotter object to a cooler object.
14	Heat sink	A device or substance used for absorbing and dissipating excessive
15	IP	A standardized code used to classify and indicate the degree of protection provided by an enclosure or device against the dust and water.
16	IK	A degree of protection provided by an enclosure against mechanical impacts or shocks
17	Kelvin	Color measure as to Yellowness or Blueness of the color white. The higher the Kelvin temperature the more Blue than White
18	LED array	A device that incorporates LEDs into a package that may then be integrated into a fixture
19	LM-79	IESNA approved method for the electrical and photometric test of solid state lighting devices
20	LM-80	IESNA approved method of measuring Lumen depreciation of LED Light sources. It is related to the effective useful life of the product.
21	LM-82	IESNA approved method of mesauring Lumen deprecition of LED Light sources in specifically high ambient temperature conditions.
22	Lumen (lm)	Measurement of luminous flux of quantity of light emitted by a source
23	Luminaire	Lighting fixture complete with lamp, housing, power supply and optical components used to direct light.
24	lm/W	Measurement of how effective the light source is in converting electrical energy to Lumens of visible light. Luminous Efficacy

## LED LIGHTING TERMINOLOGY

No.	Terminology	Description
22	Lux (lx)	Unit of luminance or density of light falling onto a surface. One lux is equal to one lumen per square meter.
23	Optical performance	Optical performance is measured by photometric data covering the efficiency, output, quality and life of a light source.
24	РСВ	Printed Circuit Board are made from various materials including fiberglass and aluminum. The PCB has an electrical circuit imprinted in silver etching.
25	Photometric	Measurement of light intensity. Photometric parameters including lumens, intensity, luminance, illuminance, CRI etc.
26	Power factor	A measure of how effectively electrical power is being used in an AC circuit with a dimensionless number between 0 and 1 that indicates the ratio of real power to apparent power
27	Power supply	Device that supplies electricity for energy. Most LED Power Supplies Convert Line Voltage (110AC) to 12 & 24V DC.
28	RGB	Acronym for Red, Green, and Blue. These are the 3 primary colors of light. Combinations of these 3 colors to create wide variety of other colors.
29	RoHs	Restriction of Hazardous Substances; A European Union directive that restricts the use of certain hazardous substances in electrical and electronic equipment.
30	SDCM	Standard Deviation of Color Matching; It is a metric used to quantify the color consistency or uniformity of light sources.
31	SSL	A type of lighting that uses semi-conductor light emitting diodes (LEDs) or organic light emitting diodes (OLED) as sources of illumination rather than incandescent, plasma or gas lamp sources.
32	TRIAC	A type of electronic component that is widely used for controlling alternating current (AC) power
33	UV	Invisible radiation that is shorter in wavelength and higher in frequency than visible violet light. UV rays are light waves that are similar to the light from the sun. UV radiation can cause oxidation, fading of colors.
34	Voltage (V)	The rate at which energy is drawn from a source that produces a flow of electricity (amperage) in a circuit. The difference in electrical charge between two points in a circuit is expressed as volts.
35	Wattage (W)	The unit for measuring electrical power. It defines the rate of energy consumption by an electrical device when it is in operation. The energy cost of operating an electrical device is calculated as its wattage times the hours of use. In single phase circuits, it is related to volts and amps by the formula: Volts x Amps x Power Factor = Watts.
36	Weatherproof (W/P)	Weatherproof meaning the product will take water splashing and high humidity without deterioration to the LED or circuit. LED product cannot be submerged into water.
37	0-10V	a 0-10V control signal is commonly used for dimming control. A control system generates a voltage signal that varies between 0 volts (minimum brightness) and 10 volts (maximum brightness).
38	I-10V	analog control signal used for dimming and controlling lighting fixtures. Similar to the 0-10V control signal, the 1-10V control signal is used to adjust the brightness of lighting fixtures, but it has a slightly different voltage range.



## NOTES

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