

...So much more than a Manufacturer of LED Light Fixtures... We provide illumination solutions that allows end-users to reduce their ROI life cycle, impacts on Safety and increase Efficiencies of their Operations

## So much more than a Manufacturer of LED Light Fixtures...



FROM DESIGN
TO DELIVERY
WE ARE FOCUS

100%

SAFETY
QUALITY
&
OPERATIONAL
EFFCIENCIES

## FIXTS BUSINESS PORTFOLIO

Manufacturing &

OEM Network Support

Industrial & Commercial LED Light Fixture Manufacturer

Energy and O&G LED Light Fixture

Manufacturer

Aluminum Poles Manufacturer

Customized LED Light Fixture & Lighting Layout Project

TFG Strategic Sourcing & Project Management

Automated and Non-Automated Inspections

**Electrical Capital and Spares Sourcing** 

O&G and Maritime Spares & Equipment Sourcing

Project Management

**Consulting Services** 

**Project Execution Coordination** 

Commissioning

Powered by The Fixts Gloup LLC

ixts Gloup LLC | Confidential Information

# Key Strengths and Abilities



- Documented QA / QC Processes: PPAP, DFMEA, OQC,
   IQC, AQC, IPQC, FGQC, Supplier QA/QC, etc.
- Certification Specialists: UL, ETL, FCC, DLC, Energy Star, NEMA, NSF, etc. \*
- Hazardous Location Certs: UL1598/A, UL8750, UL924, NEMA4X, UL Marine Grade, 65° C ambient temperature, CAN/CSA C22.2, NEC Class I/II/III, Div I/II, IP69K, Zone 1&2, IECEx, etc. \*































## By the numbers

750 Thousand square feet of advanced manufacturing floor space across four company-owned facilities. Canada, USA, Mexico and China

500 Full-time employees worldwide, and counting

50 Full-time designers & engineers

30 Countries to which we sell and ship goods

12 Fortune 100 OEM customers

Assembly and Distribution Centers (DC) to serve our USA customers

Vertically integrated company proven to competitively design, engineer, produce, distribute and commissioning your Projects

















\*Utilizes both in-house staff & strategic third-party services

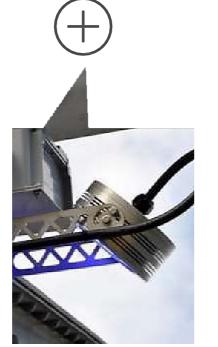
# Illumination Project Support





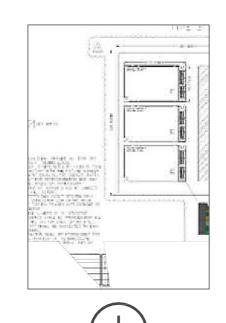
## Lighting Audits & Layouts

- We offers lighting audits and consults on-site.
- We create 3D lighting layout reports of buildings, vessels, vehicles and complete site designs free of charge.



### **Luminaire Customization**

 Our in-house team of industrial designers can design custom luminaires and brackets.



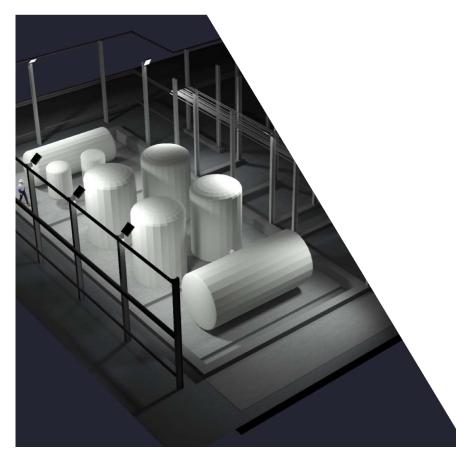
## **Project Documentation**

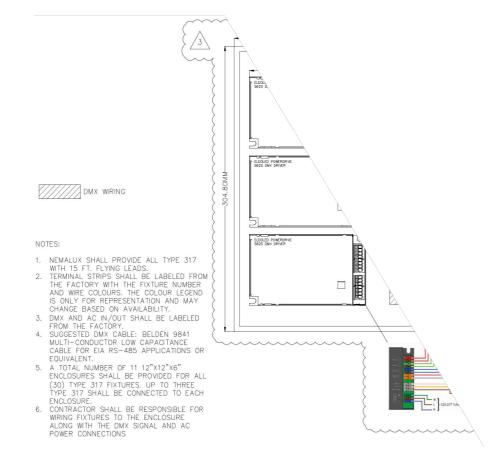
 Clear communication is maintained throughout the design process in Nemalux vendor documentation.





Implementation support and field Assessment during execution is always available.









# TFG Strategic Sourcing & Project Management



### 6 KEY APPROACHES

- 1 TFG Team can offer a Sustainable value, more efficiently, shifting focus from Tactical to Strategic
- 2 Always Safety First at The Best Total Cost of Ownership
- 3 Support to reduce cost base, replicating Value Created and meet and/or exceed your current goals
- 4 On-House Strategic Sourcing / Procurement, specializing in MRO and critical path goods,
- 5 Strategic Alliance with a Best-In-Class electrical supplies in the Industrial, O&G and Maritime Sectors
- 6 Assessment and in-situ Inspection that helps to eliminate Time & Cost savings with immediately data turnaround

## 6 KEY STEPS

#### **PLANNING**

- Establish Governance
- Alignments With Stakeholders
- Develop Objectives
- Plan Aligned With All Functions

#### 2

#### **INSPECTIONS / AUDITS**

- Execute Implementation Plans
- Automated (Drones)
- Non-Automated



### EXECUTION

- Sourcing / Procurement
- Consignment
- Supply Chain/Logistics
- Delivery International & Domestic

#### 3

#### **ASSESSMENTS**

- Survey Completion
- Outcome Report
- Recommendation

### COMMISSIONING

- DN
- Supervised
- Certified



#### **IMPROVE**

- Cost Control
- Operational Efficiencies
- Unlocking Savings



# Key Clients





























































LAFARGE













**EVRAZ** 











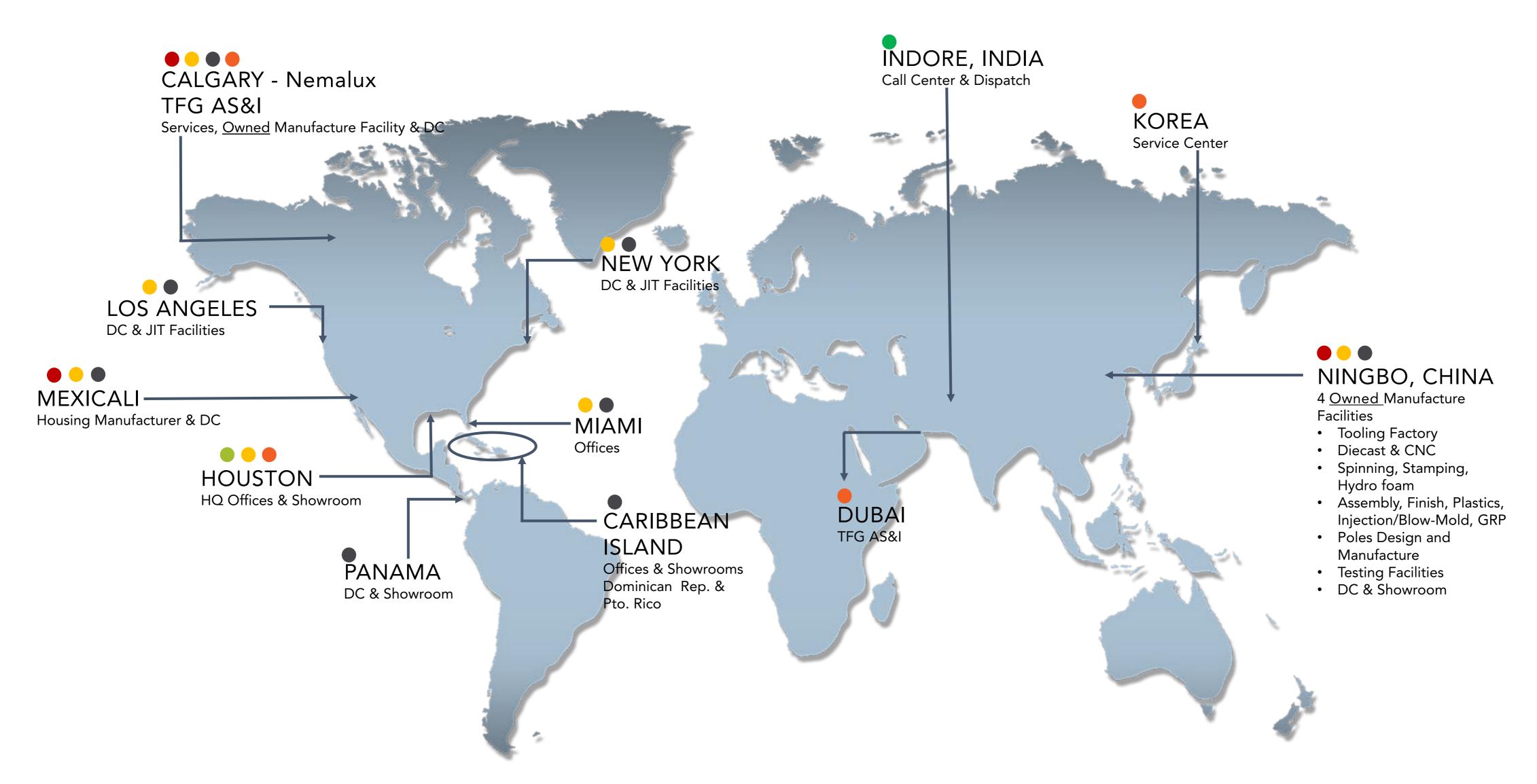




## Our Footprint

Head Quarters Manufactures Just In Time Facilities Offices, DC & Showrooms Call Center & Dispatch Electrical Ing. Service Team





# Our Value Proposition



- ✓ Safer, Reliable and Innovative Solutions
- ✓ Over 40% TCO Reduction from conventional applications
- ✓ Innovation that impacts in Downtime and Increase Utilization



### Our Desire Outcome

- Schedule a meetings with Technical & Commercial Organization to unlock additional Values
- Introduce innovative solutions that impacts directly on Safety,
   Environment, Operational Improvement and Cost



Advantages - Case Studies - Nemalux Fixts

# LED Light Fixtures Advantages



#### **SAFETY**

- Drops Compliant (3 levels of securement)
- All hardware meets or exceeds most Domestic & international Standards
- Fully even lighting and reduced shadows
- Focused optics prevent glare of the personnel during operations
- Improves Visibility
- Decreased Work Errors that may end on Incidents / Accidents
- Cools Down confined spaces (i.e. Engine Rooms). Emit Negligible Heat

### ENVIRONMENTALLY FRIENDLY

- IDA Dark Sky Compliance. Approved for low glare and full cutoff to minimize light pollution and reduce environmental impacts of lighting on wildlife and local ecosystems
- Up to 80% less greenhouse gases (CO2 reduction)
- Long life, less Waste Management Reduction, as compared to MH/HPS
- Fewer bulbs need to be produced, packaged, used and ultimately disposed.
- No Toxic Waste
- Reduce noise pollution from the environment compared to Fluorescent Tubes and MH/HPS bulbs
- Free of any chemical which can be hazardous for environment or public health

#### **OPERATIONAL EFFICIENT**

- No manpower required to operate/maintain within 100K hrs. of utilization
- Increased efficiency during night operations (clear visibility)
- Color quality improvement represents operational improvements
- Energy savings also directly correlates with carbon dioxide (CO2) emission reductions
- Reduce on Fuel load
- A field serviceable Fixture, individual components can be ordered and replaced on site by a certified electrician under the local electrical code rather than returning the complete fixture for maintenance

#### TECHNICAL VIABLE

- Designed to API 4F standards
- Compliance with all international regulations
- DLC v4.4 Listed high efficiency and performance
- UL1598/A, UL8750, UL924, NEMA4X, UL
- ABS, Marine Grade, CAN/CSA C22.2, NEC
- Class I/II/III, Div I/II, IP69K, Zone 1&2, IECEx, etc.

#### **COST EFFICIENT**

- Decreased fuel consumption
- Longevity which translates to overall total cost of ownership
- Typically a 400-watt MH/HPS/HID light fixture can be replaced with an LED fixture between 100-150 Watts.
- Between 40%-80% impact on Energy Consumption Cost

## Case Studies





#### Oil Well Command Centers

Industry: Oil & Gas

Equipment controller cabs require exceptional visibility for both the inside controls as well as exterior activity. With changing light levels during 24/7 operation, cab workers needed light adjustment to achieve optimal monitoring. As outside light reduces with the setting sun, the interior of the cab becomes the brighter light source, limiting the primary field of vision to just within the cab. Learn more about how Nemalux created solutions for this challenge.



#### **NASA Ames Research Center**

Industry: Aerospace

One of the more challenging applications for lighting systems is the illumination of confined spaces. Such a challenge was presented to the Nemalux team by members of the NASA Ames Research Center. Built in 1956, the Unitary Plan Wind Tunnel at NASA Ames Research Center in Moffett Field, California is an impressive example of engineering and design. As part of the continuous improvement program, the facility has been testing a variety of LED systems to increase existing light levels, decrease maintenance cost and improve visibility for a wide range of cameras and sensors. Find out how Nemalux was able to help with this project.



#### Photobiology

Industry: Research & Development

Photobiology is the study of light and its effect on living things. There has been a great deal of study on photobiology in the area of agriculture. However, its application in the oil & gas environment is a new field. It is a niche market for those companies like Nemalux that have the expertise to engineer lighting systems that enhance operations and safety in the energy sector.



#### **Industrial Compressor Site**

Industry: Oil & Gas

The feasibility of using LED light fixtures at this oil and gas site was investigated, with a consideration given to several factors including energy savings, low maintenance costs, comparable capital costs and the safety of low voltage DC.



#### Aircraft Hangar, Calgary International Airport

Industry: Aerospace

An infrastructure team needed to install outdoor lighting to their maintenance hangar's exterior. Light colour temperature had to be specific as well have versatile angle control so lighting glare would not interfere with other planes on the nearby runway. A light fixture next to a potential vibration area (door motor) could also prove a hindrance to bulb longevity. Outdoor fixture location exposed to a wide temperature range of -40C (-40F) in the winter to peak summer temperatures exceeding 30C (86F). Find out how Nemalux provided solutions for this challenge!



#### Lighting Mobile Rig Support & Maintenance Trailers

Industry: Oil & Gas

The client, a recognized leader in mobile industrial equipment, designs and produce trailers that are specialized for use in the oil & gas industry. Efficient, bright, rugged lighting is crucial for such equipment to ensure workplace safety and dependable operation in remote locations and under a range of climate conditions.

## Case Studies





#### Nemalux Product Spotlight - The CN Tower

Industry: Industrial

Industrial and extreme locations can be found right in the middle of your city! This time the extreme site was 1,815 feet high where freezing rainstorms and hail wreak havoc. Wind speeds are often 100 km per hour, and an object can reach up to 195 km per hour, falling from this height.



#### **Nuclear Power Plant Boiler**

Industry: Nuclear

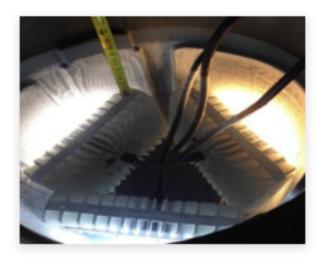
At one of the largest nuclear facilities in the world located in southwestern Ontario, Canada, they have eight generating units produce over 6000 MW electricity. The first units have been operational since 1976. Facility maintenance is critical to the long-term operation of the generating station.



#### Hazardous Location vs. Industrial Grade Luminaire

Industry: Industrial

Choosing Industrial Grade products that consist of suitable components and are designed to withstand harsh environmental challenges is key. With so many vendors in the marketplace, there is a bewildering array of luminaires available and selecting a suitable supplier can quickly become a tedious process.



#### Nemalux Research - Encapsulation and Immersion Testing

Industry: Industrial

Industrial LED Research Case Study: Nemalux LED luminaire was designed and tested to carry out IP68 ratings for permanent submersion at depths of up to 4m safely.



#### **ENFORM**

Industry: Industrial

At mid-day, the sun supplies 10,000 to 25,000 lux of light to an oil & gas site. Since oil & gas sites operate on a 24-hour basis, safe operations depend on area lighting during the hours of darkness. For six years Nemalux has been providing leading-edge LED lighting systems for the energy sector. In compliance with ENFORM's recently published Lease Lighting Guideline, Nemalux's lighting systems enhance operability and safety when natural sunlight is not available.



#### Customized Luminaire created for the City of Calgary Transit **Priority Program**

Industry: Industrial

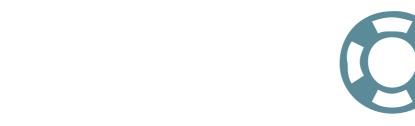
The City required a bus light indicator that could be implemented easily in the field with minimal time and labor investment. Previously the indicator lights were made on-site and modifications to signal cabinets were required to make them work.

# LED Light Fixtures Main Application





Oil & Gas



Marine & Transport



General Residential, Commercial & Industrial



Food Processing

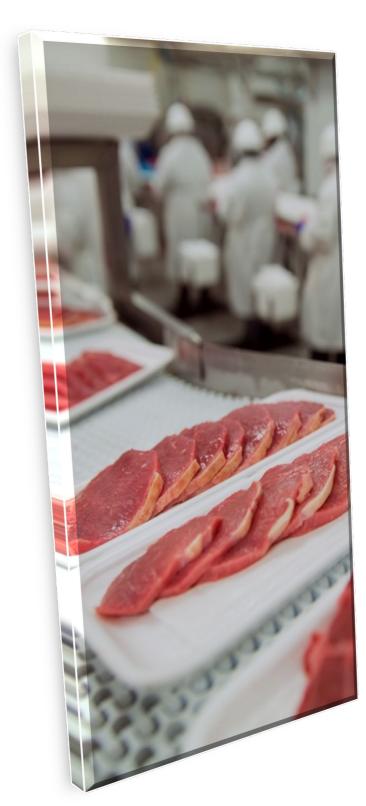


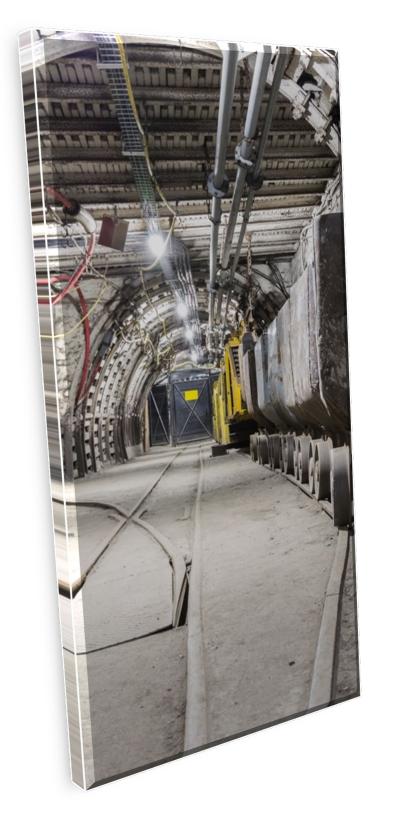
Mining





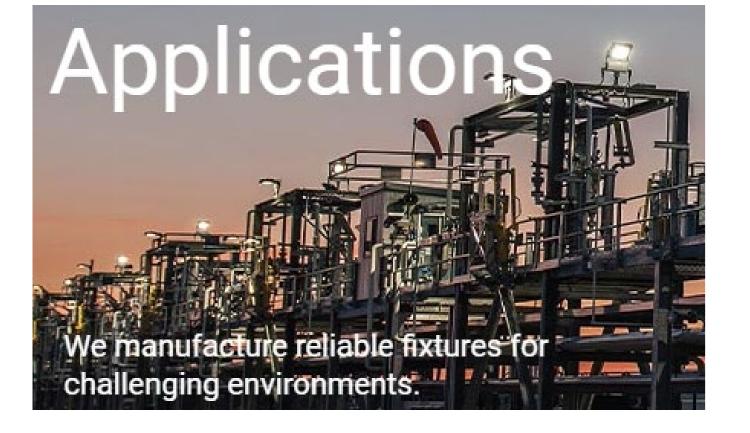














Hazardous Location



Explosion Proof







General Location



120-277 & 347-480VAC



IP66/67 Rated



IDA Certified



Optics





GS Series (DC)



GS Series (AC)



**BL Series** 



**NL Series** 



**MR Series** 



**XR Series** 



**AR Series** 



**CANLED Series** 



XCANLED (DC)



XCANLED (AC)



**EXC Series** 



**ZLM Series** 



**RS Series** 



SL Series



**BFLED Lighting Strip**