

# Mechanical Design Engineer

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## FC Lighting

Saint Charles, IL, US

### Company Description

FC Lighting is a leading manufacturer of architectural exterior and interior commercial LED lighting based in the Western suburbs of Chicago. We manufacture architectural LED lighting for high-end aesthetic installations with an incomparable value for quality solutions. The performance of LED-based lighting depends heavily on the key elements of fixture design. FC Lighting maximizes efficiency and fixture longevity through minimizing performance-robbing thermal build-up and controlling excessive and wasteful beam spread. Our product lines include: Step Lights, Cylinders, In-grounds, Pendants, Exterior Decor, Bollards, and Directional Wall lighting for exterior and interior applications.

### Job description

FC Lighting is looking for a motivated mechanical design and development engineer to innovate the next generation of LED lighting products. This person will be responsible for designing and developing new products from concept to production using SolidWorks design software. In addition, this role will involve interfacing with team members across the organization and providing production support for existing products.

### Responsibilities

- Ability to design multiple new products simultaneously from concept to production, including following through with internal and external resources to complete project details.
- Use of SolidWorks CAD software for mechanical design.
- Work with purchasing and vendors to define requirements and obtain needed parts.
- Willingness to follow established product design procedures and complete all needed steps.
- Some production support of commercial lighting products, including LED, fluorescent, incandescent, and HID light sources.
- UL / ETL approval of product designs.
- Mechanical and electrical design modifications to existing product designs.
- Mechanical, electrical, thermal, and optical validation of new designs.
- Work with sales and customer service to provide timely responses to product inquiries.
- Work with people across the organization, including production, sales, customer service, factory operations, purchasing, marketing, etc. to achieve goals as needed.

### Qualifications

- Bachelor's Degree in mechanical engineering (BSME) or equivalent.
- Minimum of 5 years' experience in product design and development.
- Thorough understanding of SolidWorks CAD software and knowledge of Product Data Management (PDM).
- Prior experience interfacing with production and CNC machines.

- Detailed understanding of the sheet metal fabrication process, including laser cutting, bending, finishing, welding, etc.
- Understanding of stamped and die cast parts.
- Understanding of thermodynamics and thermal test methods.
- Understanding of electrical design parameters related to light fixture design (Lumen output, LED, driver, dimming, etc.).
- Understanding of the UL approval process and design requirements.

#### **Additional Requirements**

- Excellent written and verbal communication skills.
- MS Office applications (PowerPoint, Excel, Word, Outlook).
- Ability to perform root cause failure analysis.
- Understanding of the National Electrical Code (NEC).
- Lighting, electronics, or building industry experience preferred.