## Overview/Purpose

Virginia Hospital Center is a general medical and surgical hospital in Arlington, VA, with 357 beds and a member of the Mayo Clinic Care Network.

For Virginia Hospital Center, Emergence proposes its revolutionary shatter-proof glass TLED solution to retrofit its current fluorescent lighting systems. today's healthcare design follows the same principles as medicine itself — extensive research, data-driven decisions and constant reassessment.

VHC's Director of Facilities took a research-heavy approach, known as evidence-based design, which took into account the extensive education Emergence provided, down to the tiniest details into considerations it deployed in designing and manufacturing its all-glass TLEDs. From hallways to nurse's station and patients' rooms, to laboratories and offices, Emergence's TLEDS vastly improved the quality of light in all areas.

## Project

Virginia Hospital Center required 10,000 four-foot, 17watt, 2,200 lumen TLED replacement lamps. Energy savings of 47% were then achieved through the exploitation of Emergence's linear TLED replacement lamps which have now become critical to the economic stability of all hospital facilities worldwide.

A simple replacement of VHC's energy inefficient fluorescent light bulbs was performed in a matter of two weeks using hospital maintenance personnel.

When deferred maintenance, reduced HVAC are added to electricity savings:

- **Yearly Electricity Savings = $203,591**
- **Lifecycle Savings = $1,162,046**
- **Yearly HVAC Savings = $47,930**
- **Lifecycle HVAC Savings = $273,573**
- **Yearly Maintenance (Labor) Savings = $9,003**
- **Lifecycle Maintenance (Labor) Savings - $51,398**
- **Yearly Component Savings = $28,397**
- **Lifecycle Component Savings = $162,083**

- **Payback Period: 6 months**
- **Annual Return on Investment = 177%**