# Powering Display Lighting

## Redefining what's possible in creative and operational display setups


TRACER®
HIGH PERFORMANCE BATTERIES

display lighting®

**Display Lighting Ltd. is a leading UK manufacturer and supplier of bespoke LED and traditional lighting systems. Known for their innovation and reliability, they serve a wide range of industries, including retail, leisure, exhibitions, museums, and point-of-purchase displays. With Tracer Power lithium-ion polymer (LiPo) batteries, Display Lighting has expanded its capabilities, offering solutions for locations where mains power is unavailable. This collaboration enhances the visual appeal of displays and provides unprecedented flexibility in lighting design.**

## The Problem: Powering Display Lighting With No Mains Power Outlet

In exhibition and retail environments, wire-free displays are crucial for both aesthetics and safety. However, the lack of nearby power outlets often posed challenges for Display Lighting. Traditional solutions like SLA batteries were heavy and cumbersome, while standard power banks were inadequate due to low voltage and the need for frequent reactivation.

## The Solution: Tracer Lithium Polymer Batteries

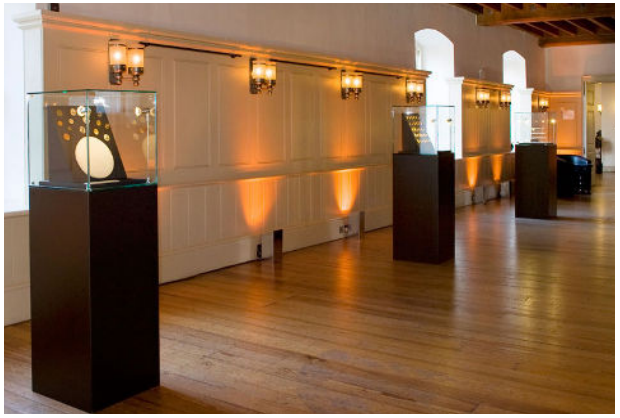
Tracer lithium-ion polymer batteries provided Display Lighting with a lightweight, compact solution that met their requirements. With capacities up to 22Ah and runtimes exceeding 20 hours for standard LED setups, Tracer batteries deliver reliable, long-lasting power. The plug-and-play functionality ensures seamless integration into bespoke designs, eliminating trip hazards and enhancing display aesthetics.

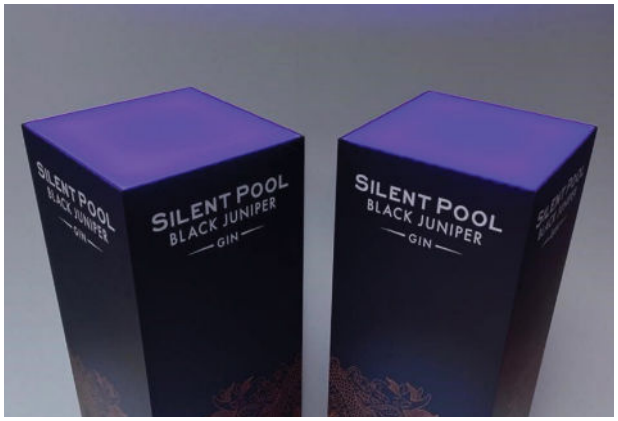
## Applications:

Display Lighting's clients, such as Exhibition Plinths and pShop UK, have utilised Tracer Power batteries to create wireless illuminated displays. These solutions have been instrumental in transforming trade show setups and retail displays, offering sleek, professional aesthetics without visible wiring.

> **"Tracer Power's Compact size and reliability make them perfect for concealing within plinths & displays"**

**- Paul Breedon**
Managing Director & Founder






## Calculating Runtime for Your LEDs When Using a 12V Battery

The runtime of LEDs on a 12V battery depends on the battery's capacity (Ah) and the LEDs' total current draw (A).

### Step 1: Find Total Current Draw

Add up the current draw (in amperes) of all the LEDs.
For example, if each LED strip draws 0.5A and you use 4 strips: 0.5A × 4 = 2A

### Step 2: Check Battery Capacity

Battery capacity in ampere-hours (Ah) shows how much charge it holds.
A 10Ah battery can deliver:
10A for 1 hour or
1A for 10 hours.

### Step 3: Calculate Runtime

Divide the battery capacity by the total current draw:

$$\text{Runtime (hours)} = \frac{\text{Battery Capacity (Ah)}}{\text{Total Current Draw (A)}}$$

For a 10Ah battery powering LEDs drawing 2A:
10Ah/2A=5 hours

Tip: Actual runtime may vary due to efficiency