



# CONFERENCE ON INNOVATION PROCUREMENT

EU2017.EE

17-18 OCTOBER 2017  
TALLINN, ESTONIA

PRO  
LITE

UNDERGROUND

Flexible in Partnership,  
Flexible in Design...

armadilloLED  
evolution in lighting

# UNDERGROUND

## PROPORTIONS OF STANDARD BULLSEYE DESIGN.



### NOTE.

100 units on this drawing are equal  
to \_\_\_\_\_ on drawing N° \_\_\_\_\_  
being actually an enlargement of  
times the design shown hereon.

Standard "Underground" lettering.  
copy of alphabet on application.

Large "U" & "D" 19 units high, 2½ thick;  
remaining letters 10 units high, 1½ "

White legend on  
dark blue ground.

½ unit white  
1 " black  
15 units bright red  
½ unit black.

**FILING ROOM**

DRAWER No. 87 282

OFFICE OF THE SIGNAL ENGINEER  
(Chief Engineer's Dept.)

Dwg No B.L. 1372.

ed design N° 659,824 (if flat).  
" N° 659,822 (if any part in relief).

# Why engage with PRO-LITE?

Written and managed by professionals

Cutting edge technology requirement

Providing assured lighting solutions

Setting quality lighting standards

Long term project engagement

Upgrade programme

Current and future asset realisation

Visual Changes and improvement to public

Ensuring conformity throughout organisation



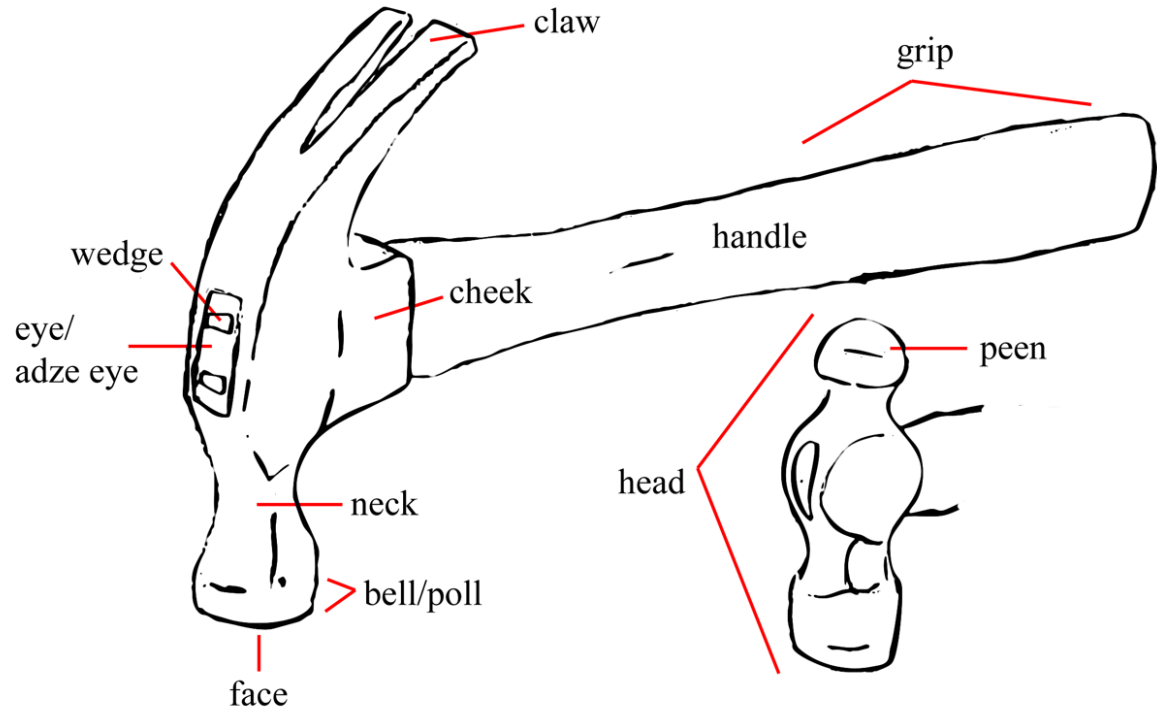


# How is innovation started...?



# Could this be achieved... ?

- Retrofit solution for asset resilience
- Improved Energy - greater than 60%
- Increased Light levels
- Surge protection - protect your asset
- 5 year warranty 24/7 lifetime operational
- Workable in harsh dust and grease environment
- Reduce maintenance and service regime
- Emergency system compatibility
- High temperature operation
- Constant vibration environment



# R&D Engineering Product Development

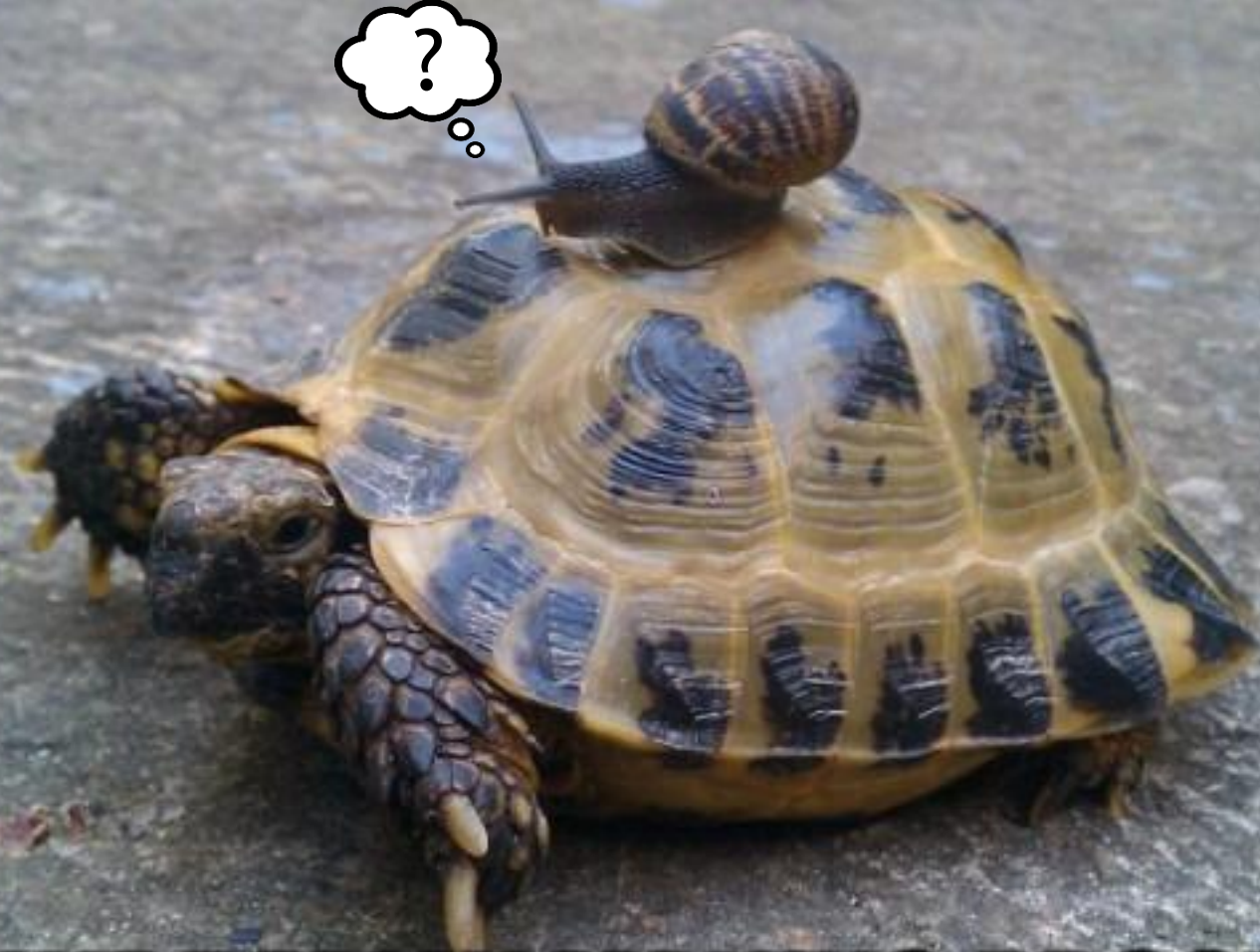




Finished  
product  
required  
as part  
of  
PRO-LITE  
engineering  
evaluation







**ARE WE REALLY MAKING PROGRESS?**



Testing...  
Certification...  
Approvals...











ISO 9001: 2004

ISO 14001: 2004

Weee Registered  
Certificate BD2588SY

# RoHS - Environmentally Friendly Restriction of Hazardous Substances

RoHS restricts the use of mercury, lead, hexavalent, chromium, cadmium and a range of flame retardents

# QuadraLED Magnalock™ & Securalock™

The QuadraLED Magnalock™ is an IP65 fitting built for easy maintenance. High power permanent neodymium magnets lock the glass cover in place for toolless access or with the QuadraLED Securalock™ a simple one twist security screw will ensure easy access when required.

- Tightly sealed by permanent high power neodymium magnets or one twist security screws
- 5 Year warranty as standard
- A uniform illuminating surface: no visible LEDs
- Toughened security glass cover
- 600mm x 600mm for standard fit in grid ceilings, or 1200mm x 600mm
- High CRI >90 as standard to reveal the true colours of surroundings
- Low dirt accumulation
- Recessed or surface mounted
- Product lifetime >50,000hrs
- Options include 1-10v or DALI dimming, and emergency power packs.





A close-up photograph of a QuadraLED Magnalock™ LED strip lighting assembly. The assembly consists of a grey printed circuit board (PCB) populated with numerous small, yellow, rectangular LED chips. The PCB is mounted on a white plastic housing. A clear, rectangular glass cover is positioned above the PCB, held in place by a black plastic bracket with a circular neodymium magnet. The background is a dark, textured surface.

## QuadraLED Magnalock™

Multiple high power permanent neodymium magnets lock the glass cover in place and ensure a tight seal for IP65 ingress protection against water and dust.



A close-up photograph of a white ceiling panel with a twist-and-lock mechanism. The mechanism consists of a black circular cap and a silver metal pin. The background is blurred, showing other ceiling panels and some wiring.

## QuadraLED Securalock™

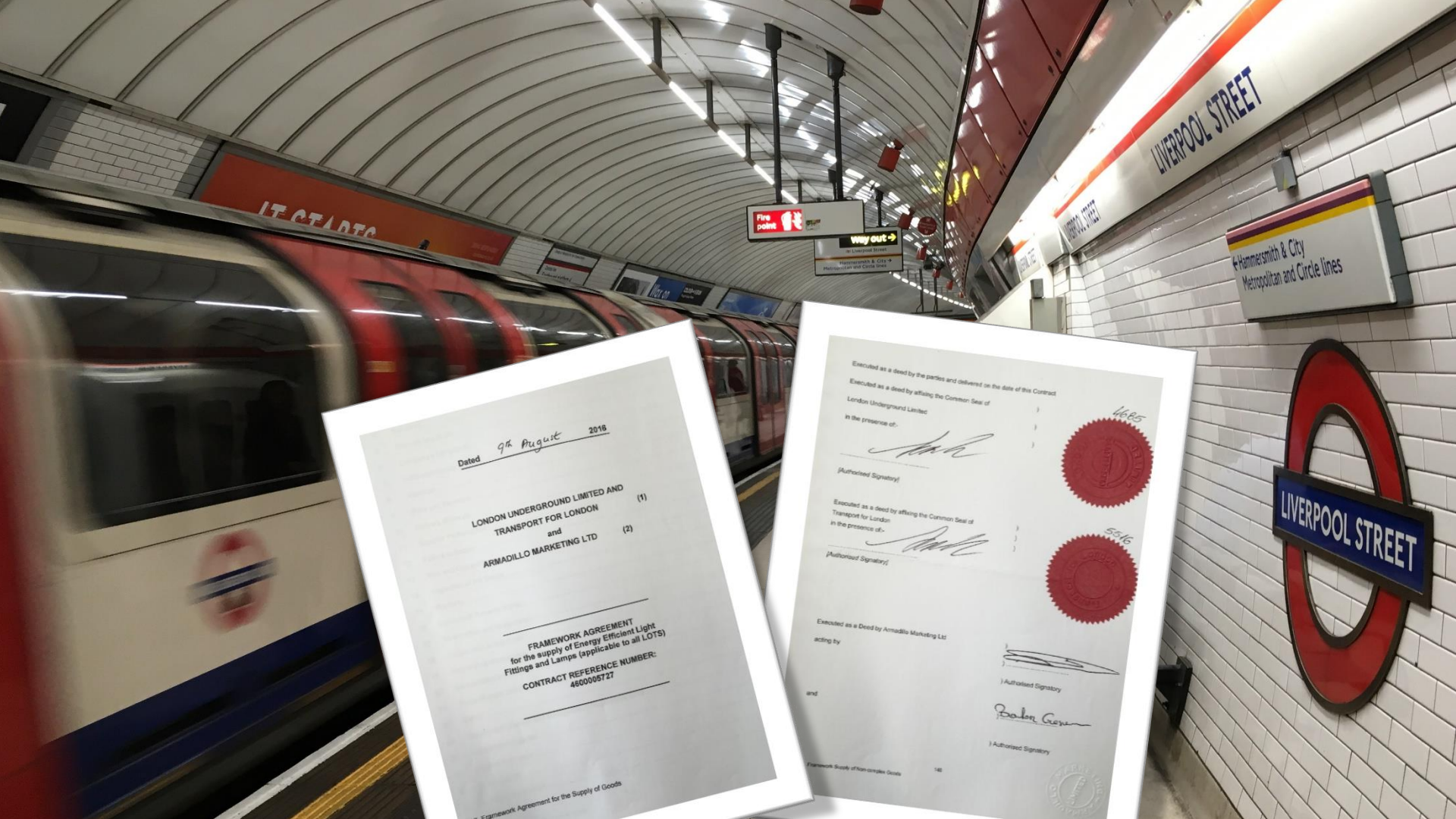
Simple twist & lock system for easy maintenance. High CRI >90 to reveal the true colours of surroundings. Excellent 105lm/w with full control options of DALI, 1-10v as required.

# Barracuda 340™ LED T8 Glass

Glass, Rigid, T8 with 340° light distribution makes ArmadilloLED Barracuda 340™ LED T8 Glass stand out from traditional & other LED solutions. Optional polymeric coating prevents dust and dirt from accumulating on the tube.

- TP Fire Rated and UL94 V-2
- IP65\* Rated for industrial use
- Optional emergency packs
- 5 Year warranty
- High CRI >80
- Direct Replacement
- Product Lifetime >60,000 Hours
- Over 340° symmetrical wide light distribution
- Polycarbonate lens and GLC™ Glass Lens Coat
- Optional coating for further reduced maintenance





Dated 9th August 2018

LONDON UNDERGROUND LIMITED AND  
TRANSPORT FOR LONDON (1)  
and  
ARMADILLO MARKETING LTD (2)

FRAMEWORK AGREEMENT  
for the supply of Energy Efficient Light  
Fittings and Lamps (applicable to all LOTS)  
CONTRACT REFERENCE NUMBER:  
4500005727

Framework Agreement for the Supply of Goods

Executed as a deed by the parties and delivered on the date of this Contract

Executed as a deed by affixing the Common Seal of  
London Underground Limited  
in the presence of:

  
(Authorized Signatory)

Executed as a deed by affixing the Common Seal of  
Transport for London  
in the presence of:

  
(Authorized Signatory)

Executed as a Deed by Armadillo Marketing Ltd  
acting by

  
(Authorized Signatory)

and

  
(Authorized Signatory)

Framework Supply of Non-volatile Goods

4665

55-16



# Trusted Technology Partner

## Armadillo LED Lighting

