



Lighting Consultation Event

Wednesday 25th September 2019

11.30am – 2.30pm

White Box, Bankside Hotel

2 Blackfriars Road, Upper Ground, South Bank, SE1 9JU

WIFI – ‘Bankside’ No password

#LdnLightingTheWay
#LightingLondon

Welcome and Housekeeping

Nic Durston,
South Bank BID

11:30 – 11:40

South
Bank
BID



The Potential Offered by Light

Dr. Peter Bonfield,
University of
Westminster
and
Institution of
Engineering and
Technology

11:40 – 12:00



Leading the Way:
The Lighting Strategy
commissioned by
the City of London
Corporation

Mark Major,
Speirs + Major

12:00 – 12:15



Approach/

Approach/
Context



Approach/ Study Area



- Briefing
- Consultation
- Analysis
- Opportunities
- Strategy



“The Lighting Strategy seeks to deliver a creative, holistic, cohesive, forward looking and smart approach in which light and darkness are better balanced to meet both the functional and aesthetic needs of the City of London.”

Drivers



The briefing, consultation and night-walks resulted in a n agreement regarding the key drivers for the Lighting Strategy

Standards

Design

Planning

Analysis/

Observations

- Local plan / national planning framework
- Lack of look and feel
- Inappropriate character
- Impact on residents
- Light pollution
- Impacts on bio-diversity

Qualities



Analysis/
Issues



Analysis/
Layers



Observations



Over-Illumination

Light Spill



Light Spill



Media



Glare

Observations



Clutter



Landmarks



Art



Events

Strategy/

Opportunities

- Providing improved levels of illuminance to enhance pedestrian use
- Use light to accentuate each distinct area after dark
- Illuminate key buildings and bridges to help improve intuitive way-finding
- Re-assess lighting levels and uniformity to help reduce energy use and light pollution
- Upgrade the existing light sources to LED
- Upgrade both contemporary and heritage street lanterns, bulkheads and other fittings
- Install a City-wide smart lighting control system to improve management, provide flexibility and reduce energy
- Re-assess mounting positions and heights of fittings including the occasional use of columns
- Illuminate important archaeological, heritage, cultural sites and public art
- Reduce light spill, intrusive lighting and light pollution, particularly adjacent to residential properties
- Provide better environmental control of the lighting to assist in reducing adverse impacts on local ecologies
- Embed lighting within the planning system to help improve design and control aesthetic outcomes
- Take a more holistic approach to lighting will assist with communications between key stakeholders

Safety

- Prioritise lighting for pedestrians and cyclists
- Contribute to road danger reduction
- Employ fuller spectrum white light sources
- Provide better optical control to luminaires
- Use integrated lighting to changes of level
- Illuminate vertical surfaces to improve legibility

Security

- Improve communication between stakeholders
- Employ fuller spectrum white light sources
- Design for the minimum requirements of CCTV
- Improved lighting local to hotels and residential areas
- Control of luminaires in response to incidents
- Provide flexible response to police requirements
- Consultation with CoL Police for light levels
- Consultation with CoL Police for timing management

Accessibility

- Consider the needs of people with reduced mobility.
- Avoid glare and excessive contrast.
- Positively illuminate changes of level.
- Ensure uplighting is well shielded and directed.
- Ensure off-peak will not compromise accessibility.
- Consider mental health needs.

Sustainability

- Reduce over-lighting through consideration of context
- Consider a 'dark night'
- Consider the impact of artificial light on well-being
- Reduce levels of illumination by design and control
- Provide good practice guidelines
- Consider retaining natural darkness
- Limit impacts on bio-diversity
- Reduce light pollution.

Culture

- Develop a policy for the highlighting of key buildings, bridges and other landmarks
- Avoid over-lighting, floodlighting and the inappropriate use of colour
- Manage timings of lighting schemes
- Co-ordinate the lighting of buildings, bridges and artworks with a programme of events

Management

- Improve communication and follow up with key stakeholders
- Develop a clear policy of the long term procurement, upgrading and repair of new systems
- Employ smart lighting controls to provide a more responsive and flexible approach
- Consider the appointment of a dedicated City of London Lighting Board
- Update the City Public Realm Technical Manual to inform external stakeholders

Planning

- Promote best practice
- Require lighting strategies to be provided as part of the pre-application process where appropriate
- Improve communication between key stakeholders regarding functional and aesthetic outcomes
- Publish detailed planning guidance as to the use of lighting within the City of London to support policy

Technology

- Upgrade all public lighting to high quality LED with the exception of historic gas lighting
- Employ simple lanterns and bracketry that are architecturally neutral
- Upgrade the lighting control to a smart system allowing addressing, feedback and monitoring
- Provide more flexible management adopting different lighting levels at different times
- Save energy by responding dynamically to background lighting levels
-

Standards/ Illuminance



Streets

	Uniformity (Uo)	Peak (Eav)	Off-Peak (Eav)	Incident (Eav)
Main Roads	0.4	20lx	10lx	50lx
Side Roads	0.4	15lx	7.5lx	30lx
Footway/ Alleyway	0.2-0.4	10lx	7.5lx	20lx
Riverbank	0.2-0.4	7.5lx	4lx	15lx

Open Spaces

	Peak (Eav)	Off-Peak (Eav)	Incident (Eav)
Adj. to Main Roads	15lx	10lx	30lx
Adj. to Side Roads	10lx	7.5lx	20lx
Adj. to Footway/ Alleyway	7.5lx	5lx	15lx
Adj. to Riverbank	7.5lx	4lx	15lx

**Uniformity dependent on routes through space as defined by use

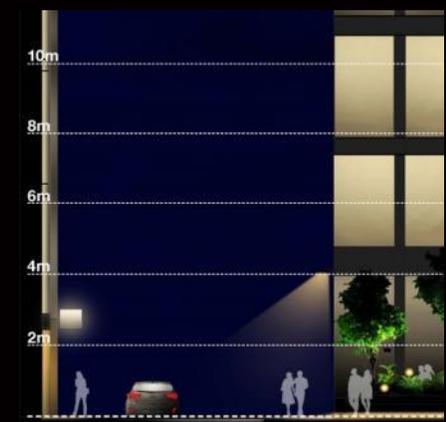
**Lighting levels indicated define values for routes around or through open spaces. Values noted should not be applied to entire space.



Standards/ Colour Temperature



Standards/ Scale



Character/ Network



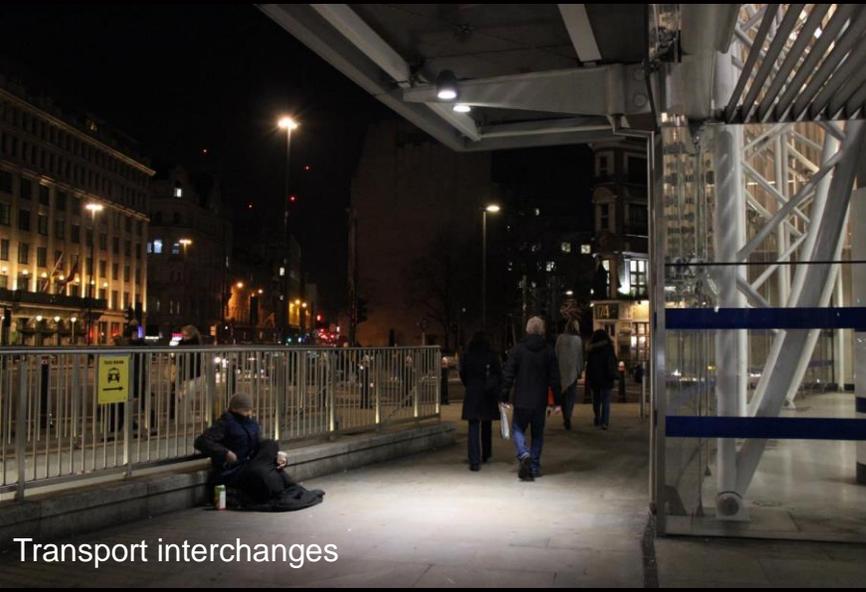
Streets



Stairs

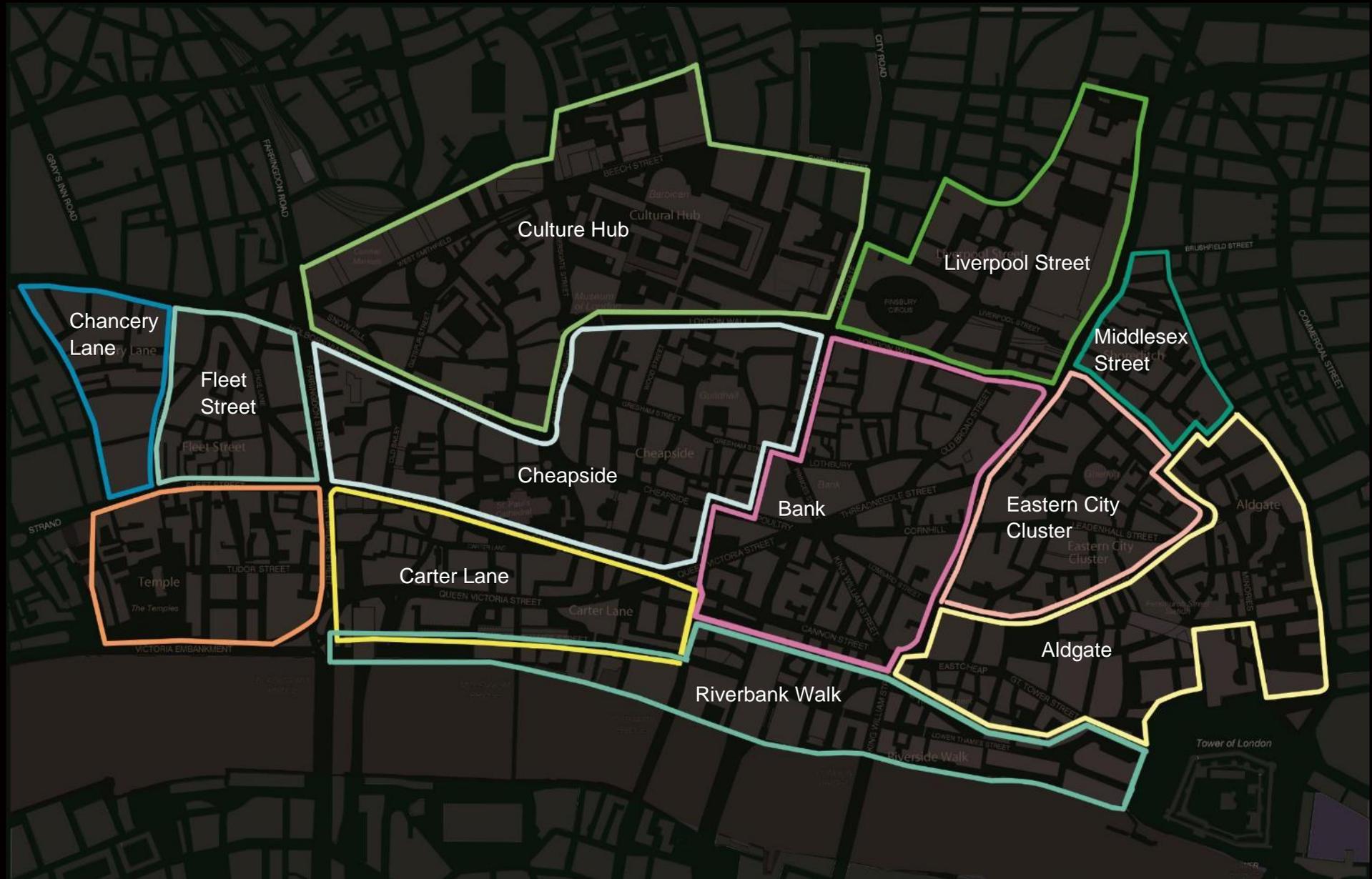


Passages



Transport interchanges

Character/ Areas



Strategy/ Character/ Areas



Chancery Lane



Temples



Fleet Street



St. Paul's and Carter Lane



Culture Mile



Cheapside and Guildhall



Bank



Liverpool Street



Middlesex Street



Eastern City Cluster



Aldgate



Riverside Walk

Character/ Culture Mile



ARCHITECTURAL LIGHTING TO KEY LANDMARKS CELEBRATES HISTORIC CHARACTER AND SUPPORTS WAY FINDING

INTRODUCE PLAYFUL LIGHTING TO IMPROVE WAYFINDING AND LEGIBILITY

INTRODUCTION OF 'LIGHT OBJECTS' CREATES UNIQUE IDENTITY AND OPPORTUNITY FOR INTERACTION

BALANCED TRANSITIONS AROUND TRANSPORT HUBS HELPS REDUCE AREAS OF HIGH CONTRAST



INCREASED VERTICAL ILLUMINATION
IMPROVES LEGIBILITY

ARCHITECTURAL LIGHTING TO
HISTORIC LANDMARKS IMPROVES
THEIR PRESENCE AFTER DARK

ACCENTUATE TRANSPORTS HUBS
TO AID WAYFINDING

Character/ Eastern Cluster



Character/ Chancery Lane



CONSISTENT LIGHTING TO RETAIL
SIGNAGE REINFORCES VISTAS
ALONG ROUTES

WARM WHITE LIGHTING
ENHANCES HISTORIC CHARACTER

CUSTOMISED LANTERNS TO GENTLY
ILLUMINATE HISTORIC FACADES



USE EXISTING INFRASTRUCTURES
TO ALLOW GREATER FLEXIBILITY FOR EVENTS

INTERACTIVE AND REACTIVE
LIGHTING FEATURES REACT TO
VARIATION IN ACTIVITY

LOWER, UNIFORM LIGHTING LEVELS
IMPROVE ACCESSIBILITY

LOW LEVEL LIGHTING TO CHANGE IN LEVEL AND
SEATING AREAS REDUCES GLARE AND SUPPORTS SAFETY

Thank You/



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The Illuminated River: Lessons Learnt

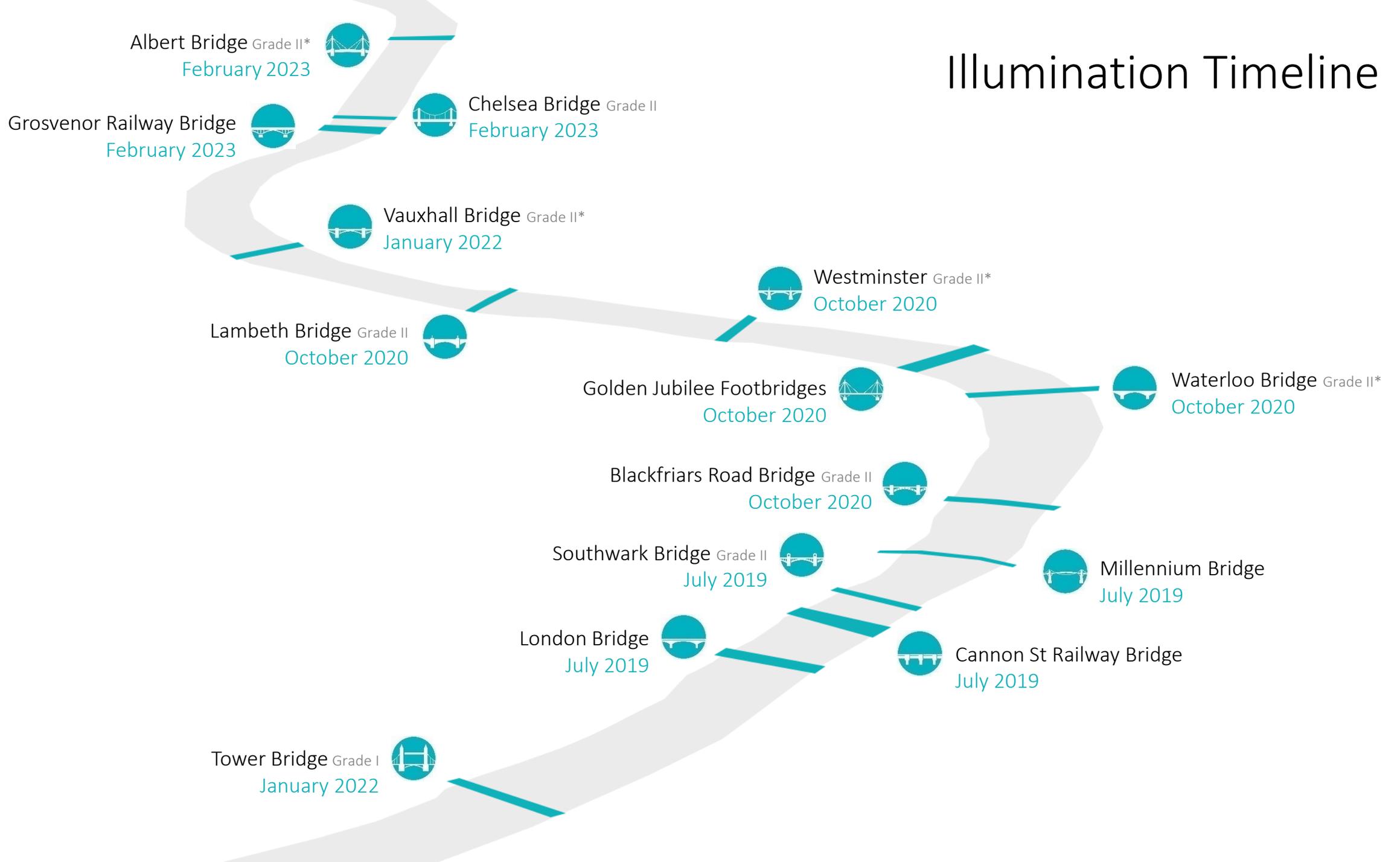
Sarah Gaventa,
The Illuminated River
Foundation

12:15 – 12:30



SUPPORTED BY
MAYOR OF LONDON

Illumination Timeline





WALKWAY TO EAST BUILDING









Before



London Bridge

After





Before



Cannon Street Railway Bridge

After





Before



Southwark Bridge

After





Before



Millennium Bridge

After





Waterloo Bridge





Westminster Bridge





Lambeth Bridge





Golden Jubilee Bridge





Blackfriars Road Bridge



Visual Environment

Project to be exemplar of sensitive lighting

Concerns:

- Light Pollution into river and sky
- Over lighting impact on views of landmarks

Starting point was to establish existing conditions

- Luminance survey from Albert to Tower Bridge
- Spill light survey on river

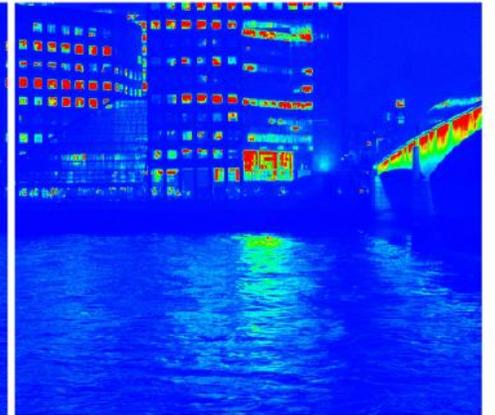
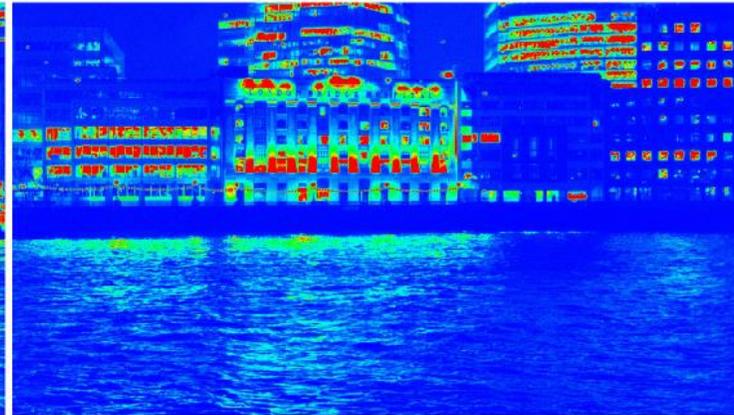
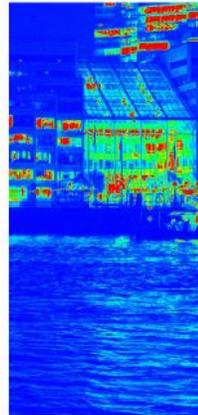


Luminance Survey

First of this scale

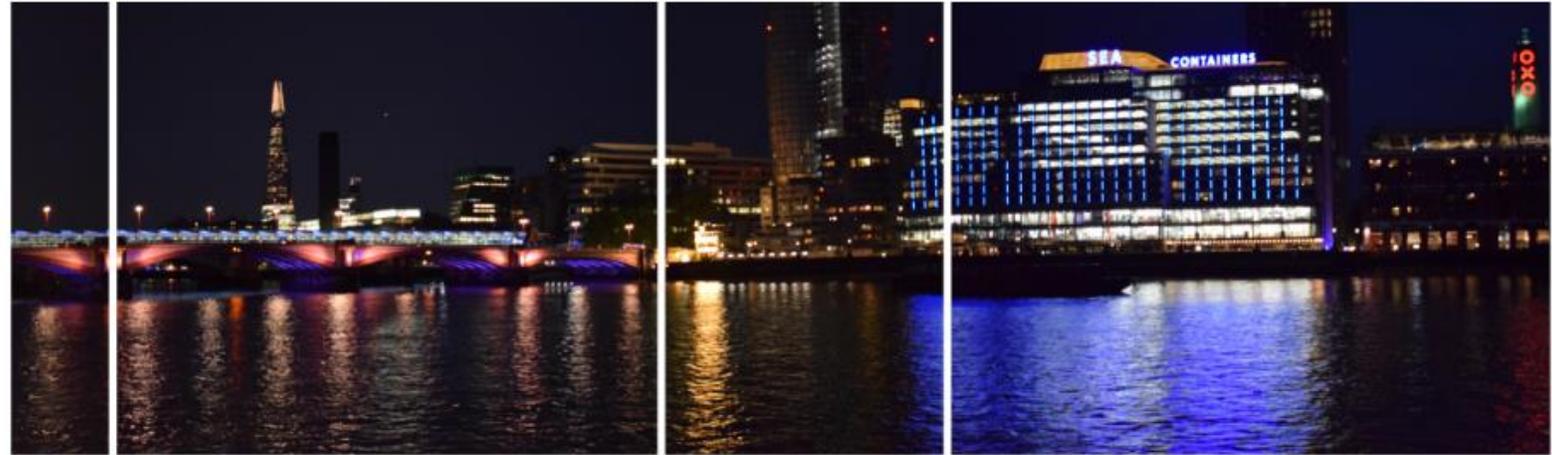


03 view of south bank east

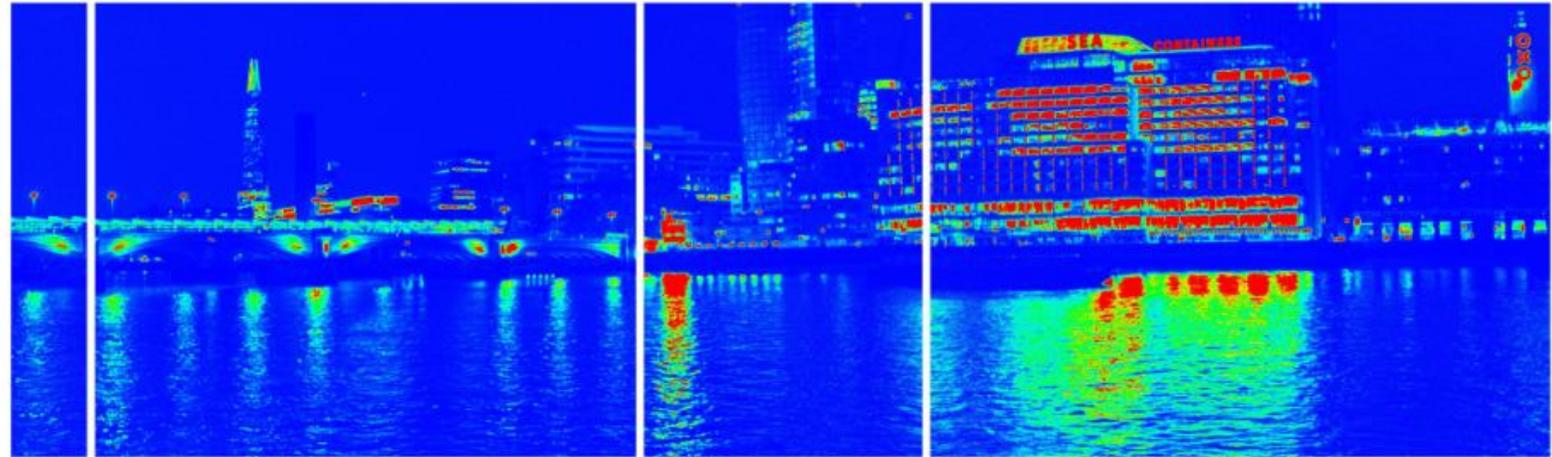


03b view of south bank east - luminance survey. "London bridge hospital" facade lit to 25cdm2

Survey of existing bridge lighting



02 view of west side from north bank

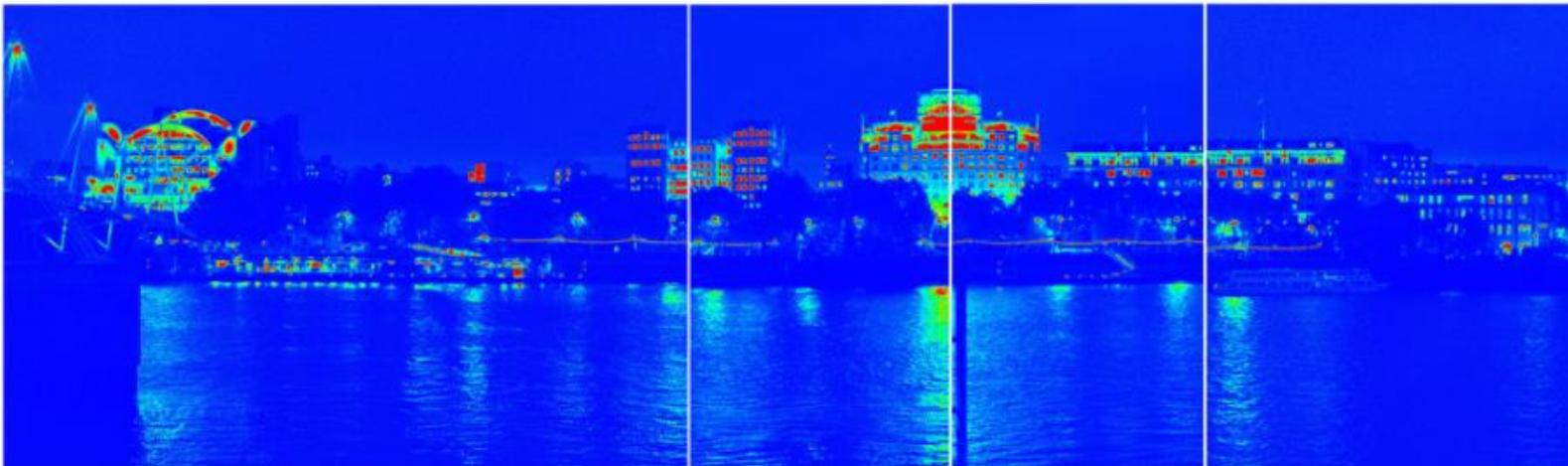


02b view of west side from north bank - luminance survey

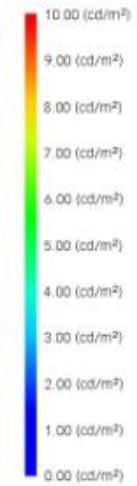




02 view of north bank east



Luminance bar (cd/m²)



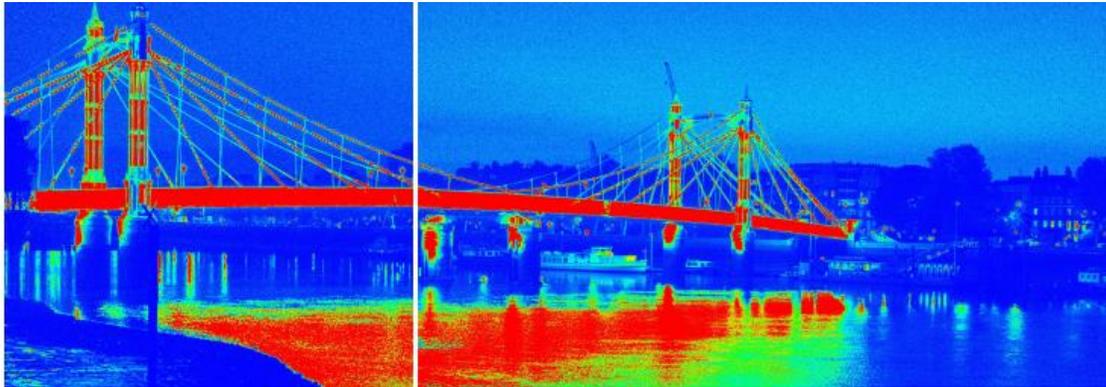
02b view of north bank east - luminance survey

Luminance Survey

Target Luminance levels for Artwork

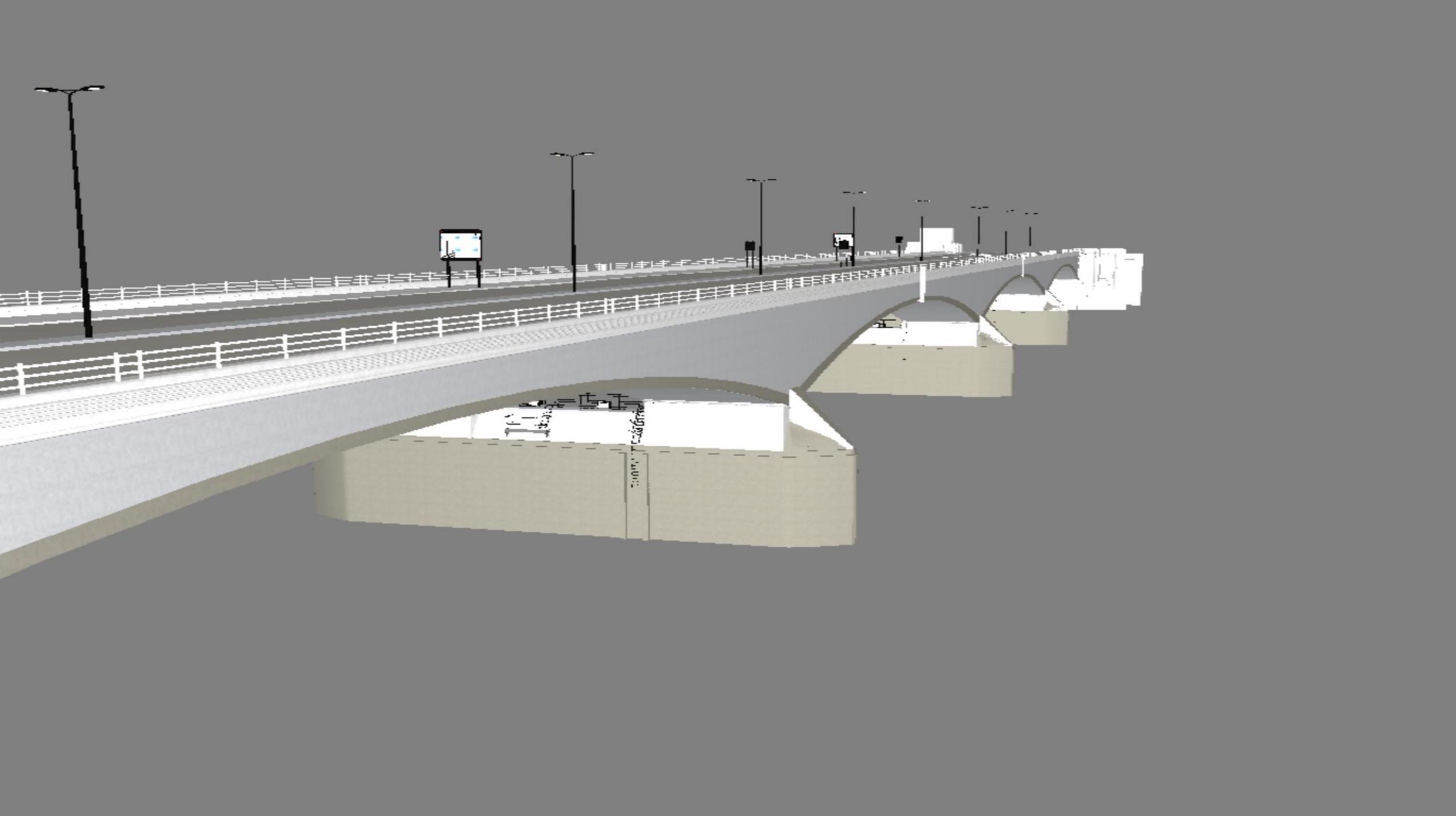
All lower than external lighting regulations

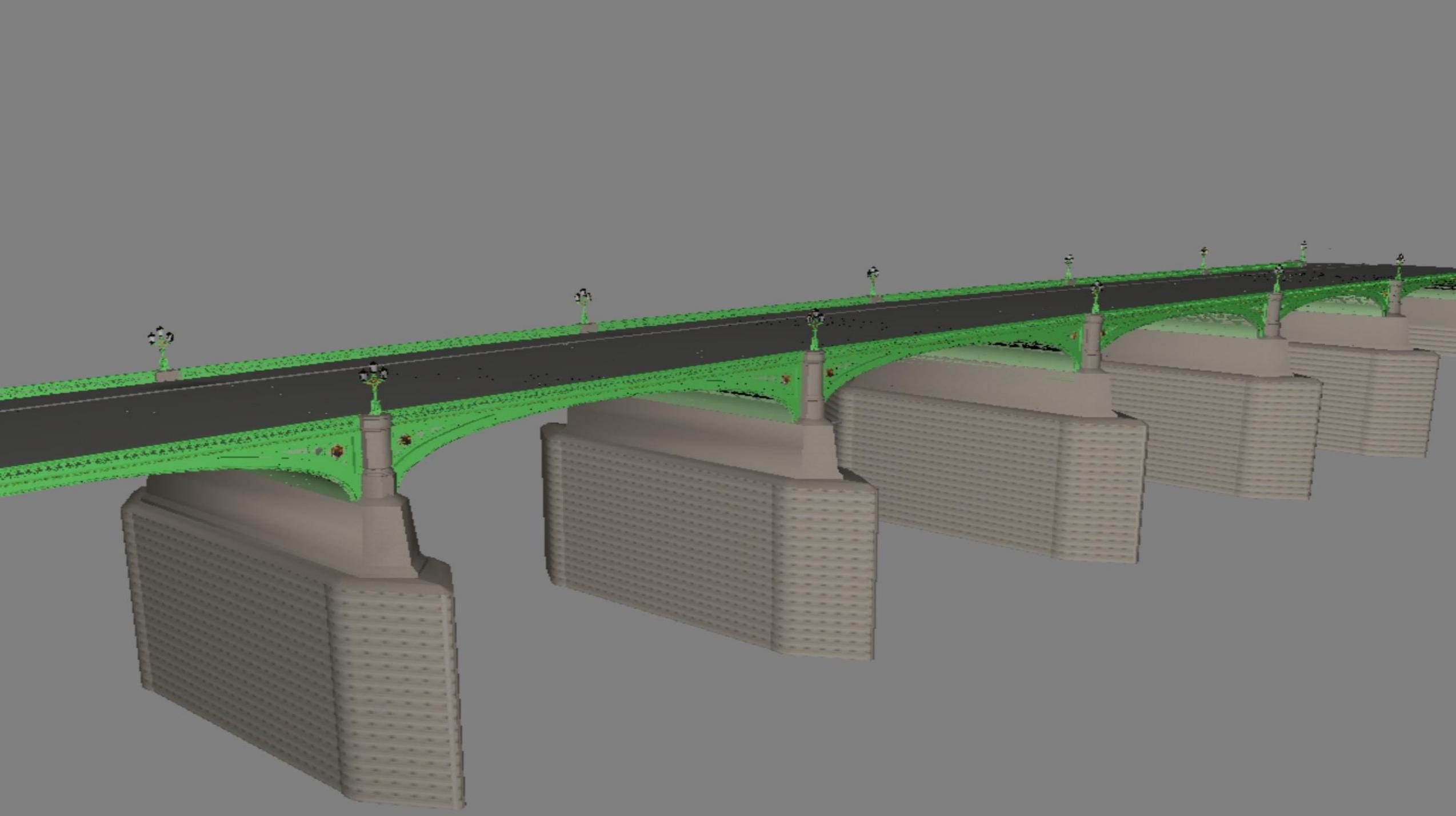
Bright enough to be seen but not overpower

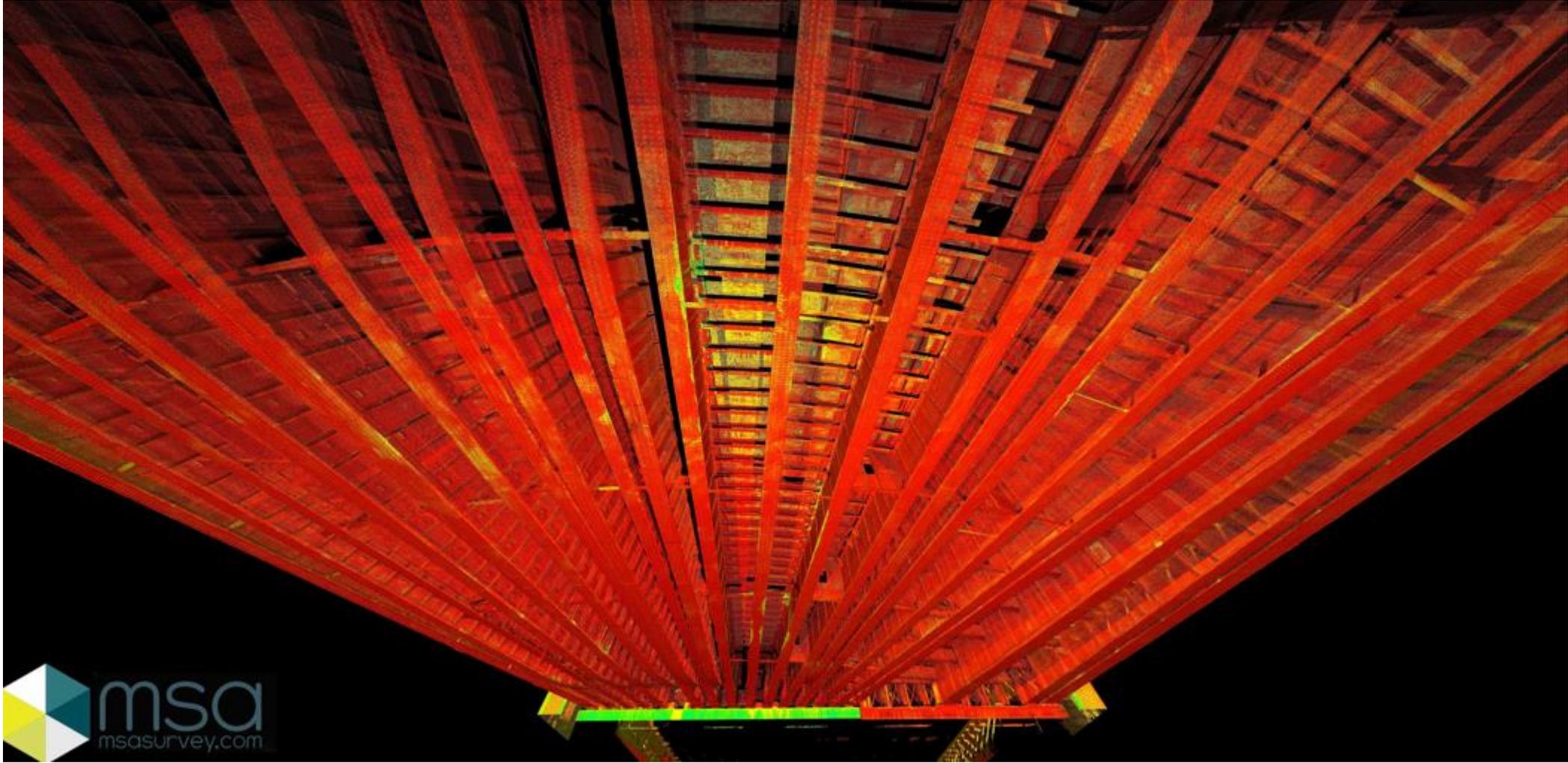


Recommend lowering luminance of Albert Bridge

Bridge	Recommended Luminance cd/m ²
1 - Albert Bridge	10
2 - Chelsea Bridge	10
3 - Grosvenor Bridge	10
4 - Vauxhall Bridge	20
5 - Lambeth Bridge	15
6 - Westminster Bridge	15
7 - Golden Jubilee Footbridges	15
8 - Waterloo Bridge	20
9 - Blackfriars Bridge	20
10 - Blackfriars Railway	20
11 - Millennium Bridge	15
12 - Southwark Bridge	15
13 - Cannon Street Railway Bridge	15
14 - London Bridge	20
15 - Tower Bridge	25























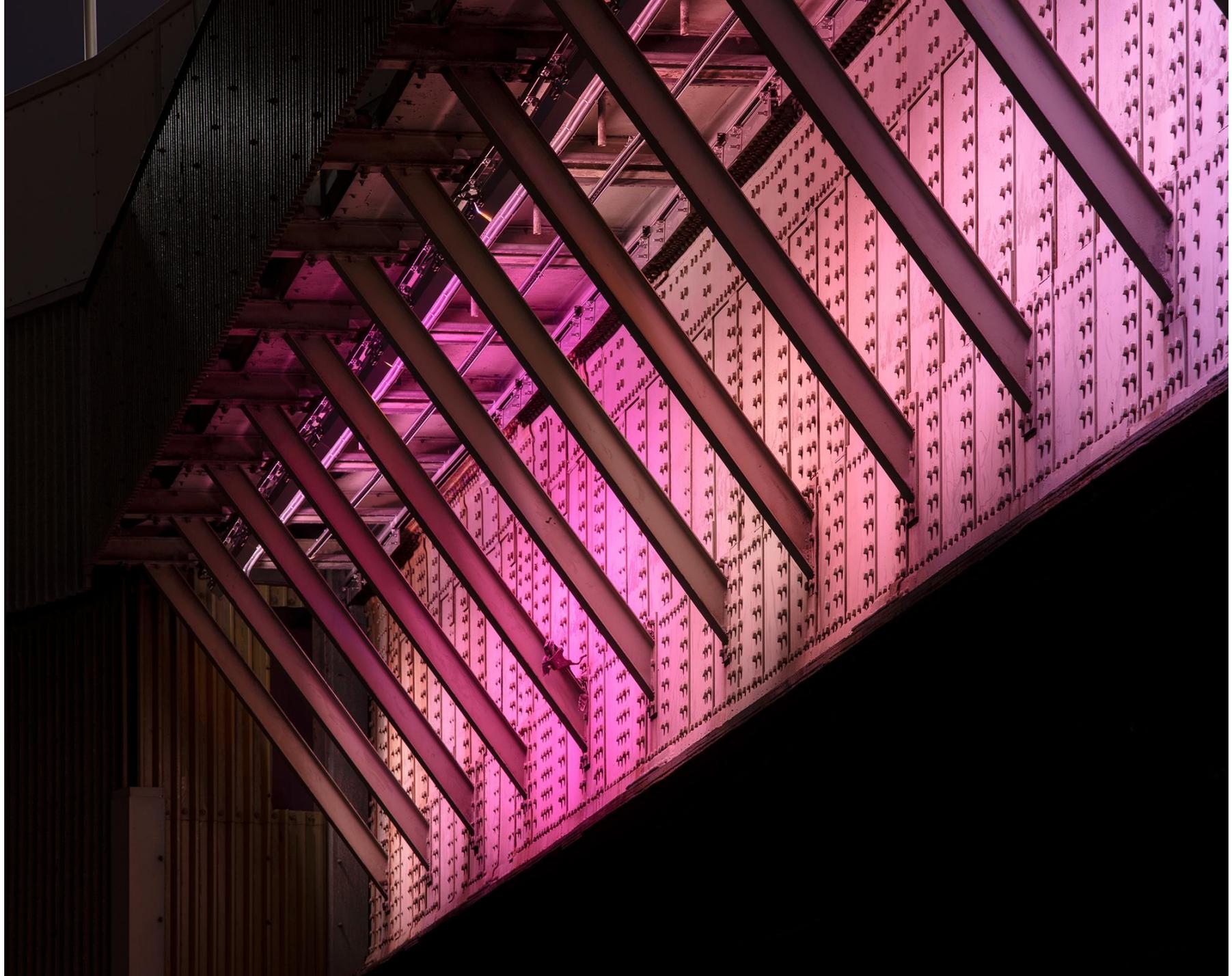




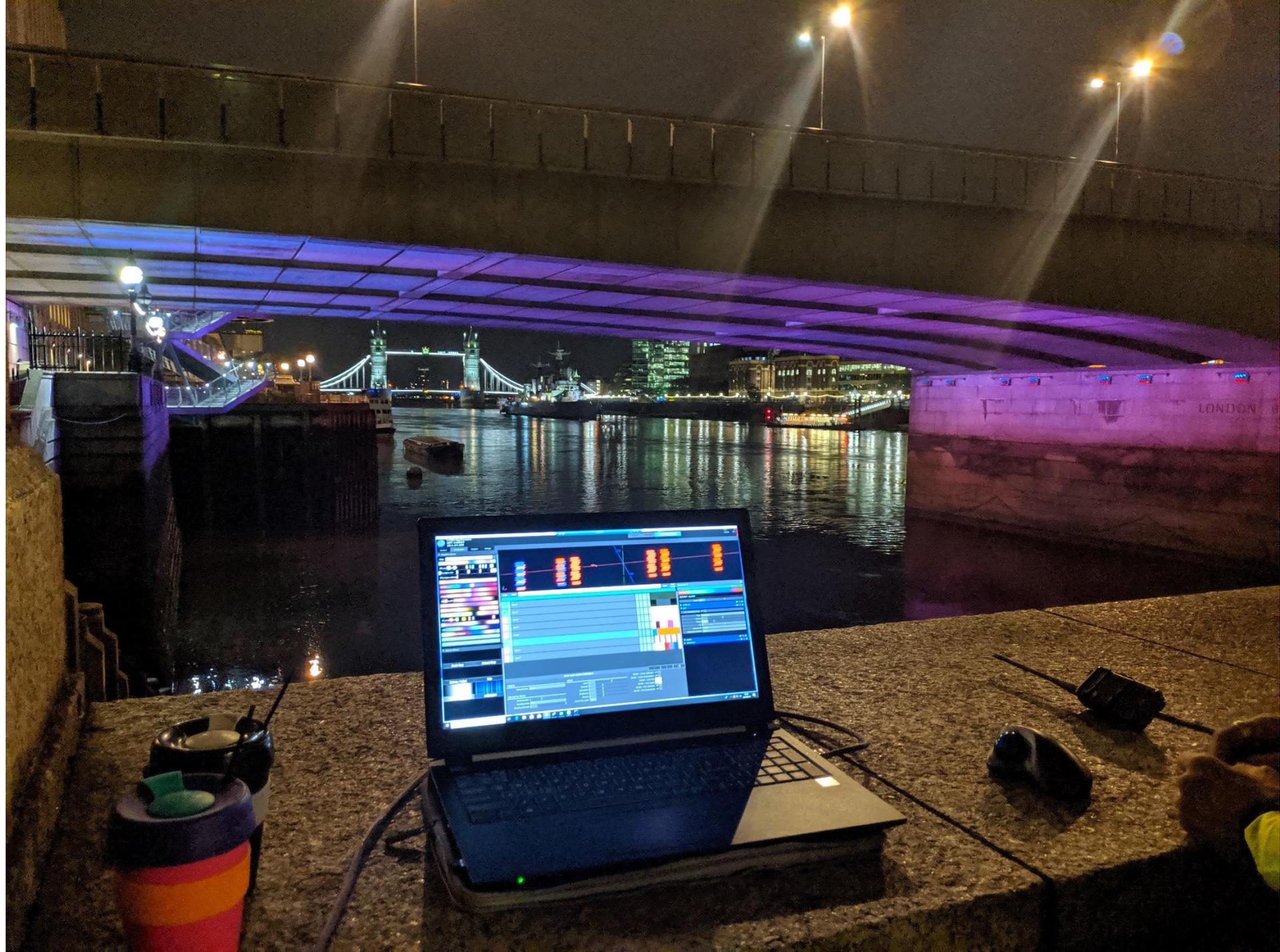


















LONDON BRIDGE








BANKSIDE
Southwark Bridge

ILLUMINATED RIVER



One in ten children who live in London have never seen the central London stretch of the Thames.

Only **60%** of millennials (aged 18-34) consider the Thames an iconic attraction, compared with **over 90%** of people aged 50+



A quarter of Londoners say they do not visit the river Thames for pleasure.



67% of parents of under-16s say they have never taken their children on a boat along the Thames.

82% of Londoners consider the river Thames to be an iconic attraction.



Over half (52%) of Londoners have not visited an attraction along the Thames in over a year.

40% of Londoners believe that more free attractions along the Thames would encourage them to visit the river.

Parents living in the City of Westminster have the highest proportion of children (**17%**) under the age of 16 who have never seen the Thames, despite the river being on their doorstep.

When complete, Illuminated River will be viewed at least:

137

million times each year

ILLUMINATED RIVER

FROM THE AIR

29
million
times



FROM THE RIVER

3
million
times



FROM BANKSIDE & SOUTHBANK

20
million
times

BY COMMUTERS:

85
million
times*



7 million cyclists



39 million pedestrians



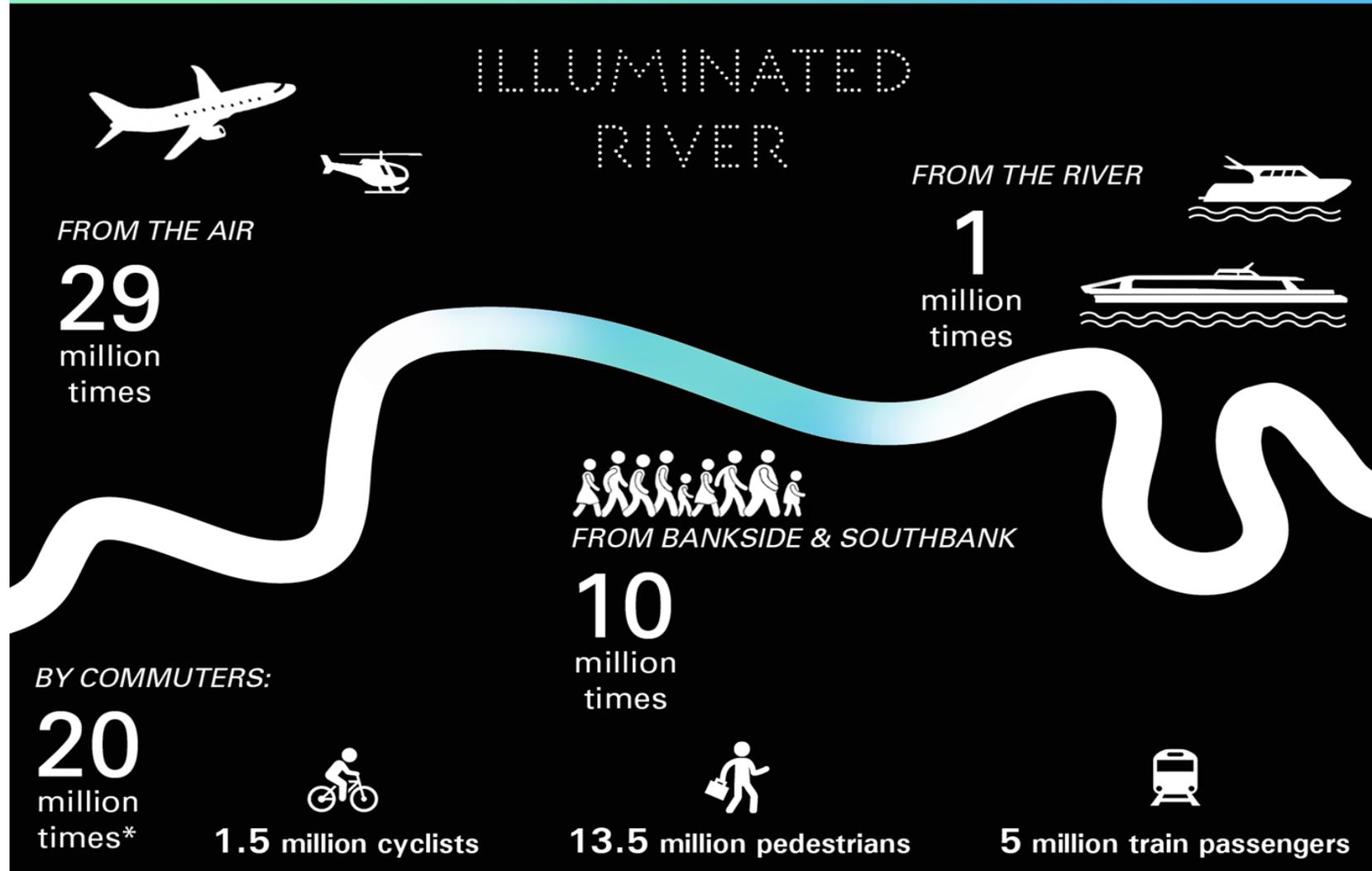
38 million train passengers

*These figures do not include those who will see the artwork by bus or car.

Based on data provided by:
TFL and Network Rail, Bankside and Southbank Employers Group, London River Services,
TFL, HACAN (Heathrow Association for the Control of Aircraft Noise) and London City Airport

The phase one bridges of Illuminated River will be viewed at least:

60
million times in 2020



*These figures do not include those who will see the artwork by bus or car.

Based on data provided by:
TFL and Network Rail, Bankside and Southbank Employers Group, London River Services,
TFL, HACAN (Heathrow Association for the Control of Aircraft Noise) and London City Airport

The lights on the bridges currently run all night, from dusk to dawn...

Illuminated River will turn our lights off at:

2am

ILLUMINATED RIVER

Energy Usage Per Night

SOUTHWARK BRIDGE

3 kw
per night
formerly 6kw

≈



LONDON BRIDGE

7 kw
per night
formerly 18kw

≈



CANNON STREET

5 kw
per night

≈



MILLENNIUM BRIDGE

19 kw
per night*

≈



*This uses 4kw less energy than Foster and Partners original 'Blade of Light' scheme (23 kw)

ecotricity

Our energy for Cannon Street Bridge is supplied by Ecotricity, who use 100% renewable green energy. The electricity supply for Millennium, Southwark and London bridges comes from City of London's appointed supplier which provides 40% of its energy from renewable sources. The City of London aims to increase this to 100% during the lifetime of the Illuminated River project.

Illuminated River
@IlluminatedRiv

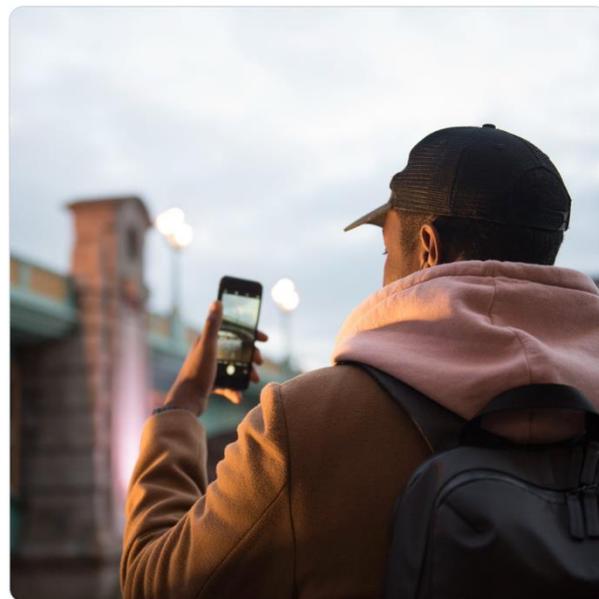
This week's [#MyIlluminatedRiver](#) photo competition theme is 'People'. For your chance to win two tickets to [@designmuseum](#)'s Stanley Kubrick exhibition, share your photos using [#MyIlluminatedRiver](#) and follow [@designmuseum](#) by 4 September. [#discoverkubrick](#)
📷 © James Newton



Design Museum

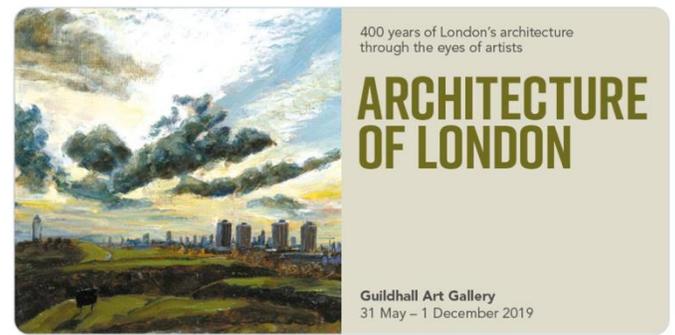
Illuminated River
@IlluminatedRiv

This week's [#MyIlluminatedRiver](#) theme is Architecture, supported by [@GuildhallArt](#). To win 2 [#ArchitectureOfLondon](#) exhibition tickets, share your photos of Illuminated River using [#MyIlluminatedRiver](#) and follow [@GuildhallArt](#). Good luck [bit.ly/2O35Umn](#)



Illuminated River
@IlluminatedRiv

This week's [#MyIlluminatedRiver](#) theme is 'Architecture' supported by [@GuildhallArt](#) and their exhibition [#ArchitectureOfLondon](#). For your chance to win 2 exhibition tickets, share your photos using [#MyIlluminatedRiver](#) and follow [@GuildhallArt](#) by 19 August [bit.ly/2O35Umn](#)



10:26 AM · Aug 13, 2019 · [Twitter Web App](#)



Illuminated River
@IlluminatedRiv

This week's [#MyIlluminatedRiver](#) photo competition theme is 'Nightlife'. For your chance to win a Philips Hue White and Colour Ambiance Starter Kit share your photos using the hashtag [#MyIlluminatedRiver](#) and follow [@Signify_UKI](#) before 5 August. Good luck.



[#MyIlluminatedRiver](#): Photo Competition

The Illuminated River will be an art commission on an unprecedented scale: a scheme to light central London's bridges along the River Thames.

[illuminatedriver.london](#)



illuminatedriver • Following
London, United Kingdom



illuminatedriver Congrats to [@gavriilux](#), winner of last week's [#myilluminatedriver](#) photo competition in collaboration with [@signifycompany](#).

👉 Next theme: ON THE MOVE 👉

Share your photographs of the newly-lit bridges inspired by the theme by 12 August for your chance to win a 1925 poster of Southwark Bridge by artist Oliver Burridge, courtesy of [@ltmuseum](#). Good luck!

[#illuminatedriver](#) [#publicart](#) [#design](#) [#architecture](#) [#london](#) [#photography](#) [#bridges](#) [#lightart](#) [#lighting](#) [#thames](#) [#bridge](#) [#milleniumbridge](#) [#southwarkbridge](#) [#theshardlondon](#)

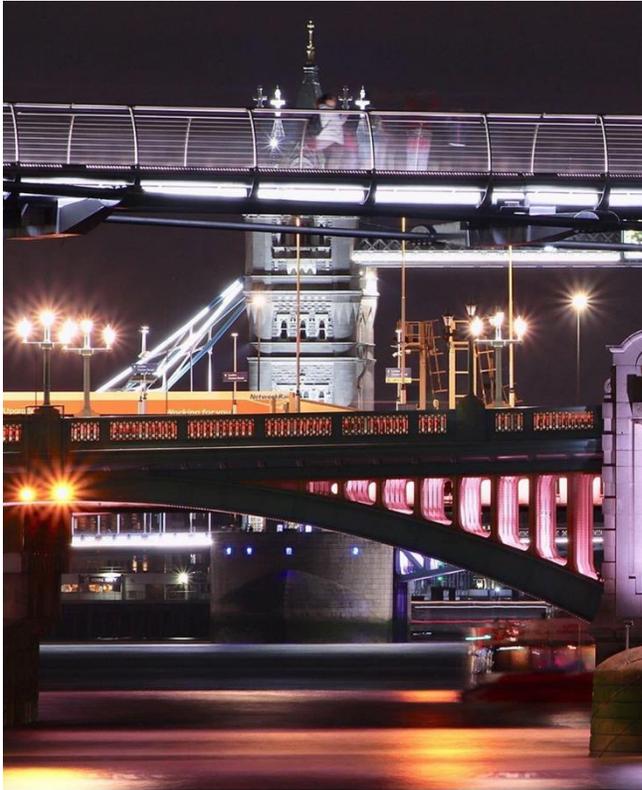


Liked by [catpodgo](#) and 246 others

AUGUST 6

Add a comment...

Post



illuminatedriver • Following
London, United Kingdom



illuminatedriver Congrats to @justefe, winner of last week's #myilluminatedriver photo competition in collaboration with @ltmuseum with this impressive bridge overlay. 🏆 UP NEXT: ARCHITECTURE 🏠
Share your architecture-inspired photographs of the newly lit bridges by 19 August and add the hashtag #myilluminatedriver for your chance to win two tickets to Architecture of London at Guildhall Art Gallery. The exhibition explores how the capital's buildings have been depicted by artists over the centuries.

#illuminatedriver #myilluminatedriver



Liked by **catpodgo** and 139 others

AUGUST 12

Add a comment...

Post



illuminatedriver • Following
London, United Kingdom



illuminatedriver Congratulations to @joasphoto for winning the #myilluminatedriver competition in collaboration with @designmuseum with this stunning perspective of #MillenniumBridge.

#illuminatedriver #artwork #art #publicart #thames #bridge #London #city #Londonbynight #people #stpaulscathedral

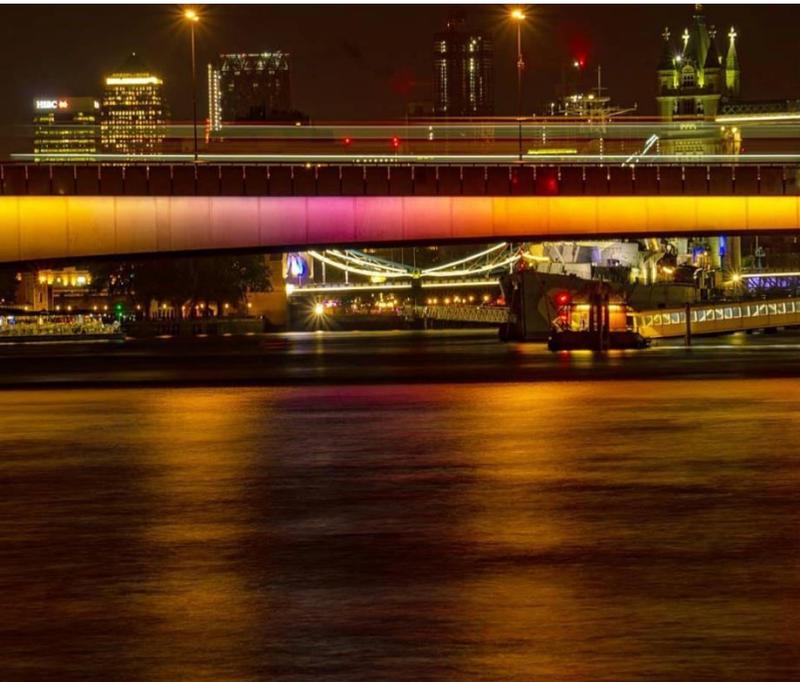


Liked by **catpodgo** and 181 others

SEPTEMBER 5

Add a comment...

Post



 **illuminatedriver** • Following
London, United Kingdom ...

 **illuminatedriver** Our latest #myilluminatedriver winning entry inspired by the theme of Architecture is this beautiful linear composition by @_lost_in_transit, congratulations! This week's prize was provided by the Guildhall Art Gallery @visitthecity. Discover 400 years of London's architecture through the eyes of artists at #ArchitectureofLondon, the gallery's major new exhibition open until 1 December. 🎉 Next challenge coming soon, stay tuned! 🎉

 Liked by **catpodgo** and **137 others**

AUGUST 23

Add a comment... Post



 **illuminatedriver** • Following
London, United Kingdom ...

 **illuminatedriver** Southwark Bridge captured by @shortiesphotography_1970 is the winning photograph of the RIVERVIEW competition theme in collaboration with @thamesclippers. 🏆 Next challenge: NIGHTLIFE 🏆 Share your photos of the newly-lit bridges by 5 August using the hashtag #myilluminatedriver and make sure to follow @signifycompany for your chance to win a Philips Hue White and Colour Ambiance Starter Kit. Good luck!

#illuminatedriver #bridge #bridges
#london #thames #publicart
#lighting #nightlife #art #artwork
#city #night #londonbridge
...

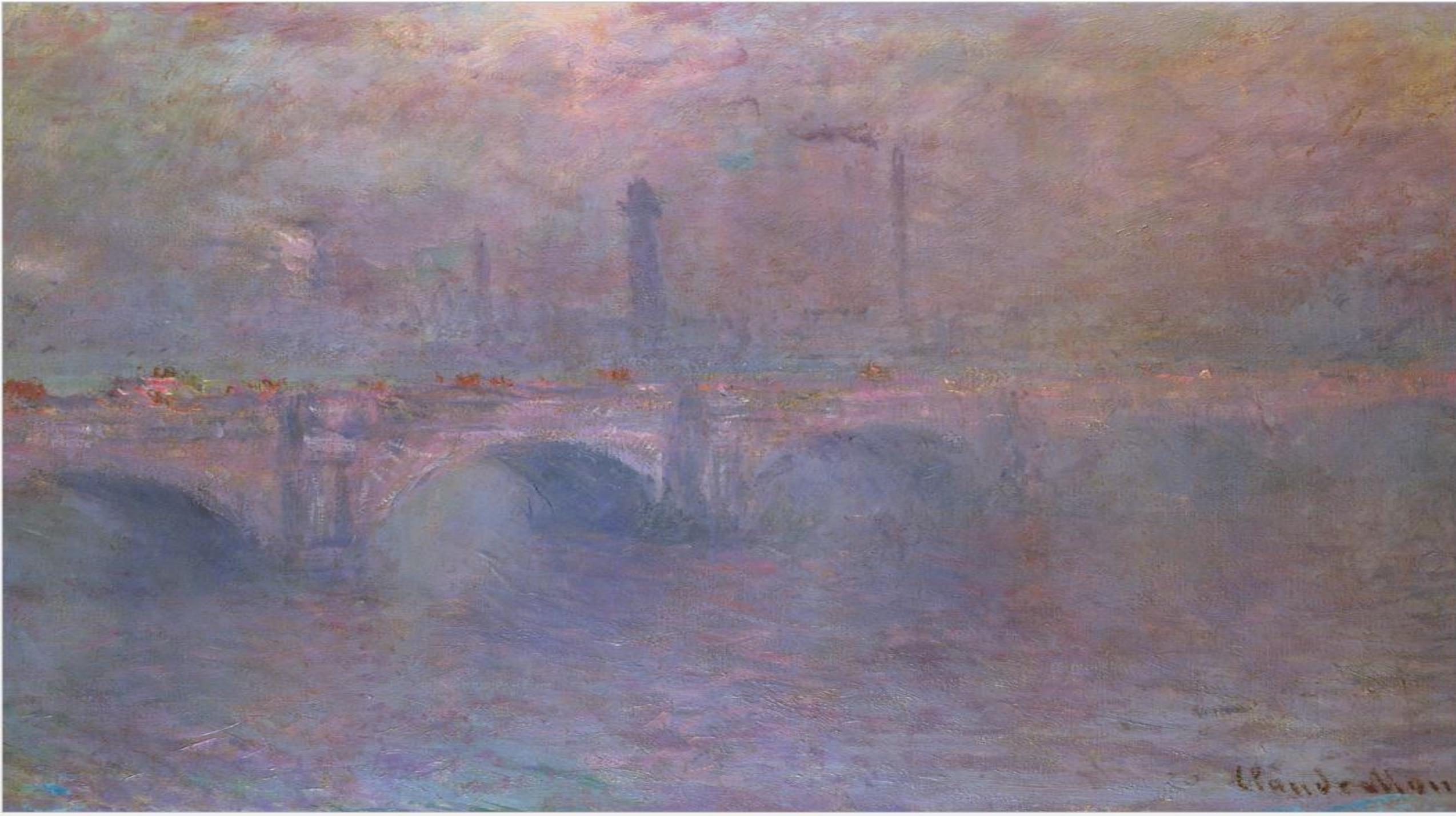
   

 Liked by **catpodgo** and **279 others**

AUGUST 1

Add a comment... Post





Wanderer



Breakout into Discussion Groups

12:30 – 13:15

Discussion Group 1 – What is our vision for lighting?

Facilitator - Clarisse Tavin, City of London Corporation

Note taker – Kiran Rao, Cross River Partnership

Discussion Group 2 – Who is responsible for lighting?

Facilitator – Patricia Brown, Central

Note taker – Sefinat Otaru, Cross River Partnership

Discussion Group 3 – What benefits can lighting deliver, and how?

Facilitator – Richard Brown, Centre for London

Note taker – Carol Quamina, Cross River Partnership

Networking and Lunch

13:15 – 13:45



**Plenary Discussion
and
Groups Feedback**

13:45 – 14:15

Discussion Group 1 –

What is our vision for lighting?

Facilitator - Clarisse Tavin, City of London Corporation

Note taker – Kiran Rao, Cross River Partnership

Discussion Group 2 –

Who is responsible for lighting?

Facilitator – Patricia Brown, Central

Note taker – Sefinat Otaru, Cross River Partnership

Discussion Group 3 –

What benefits can lighting deliver, and how?

Facilitator – Richard Brown, Centre for London

Note taker – Carol Quamina, Cross River Partnership

Way Forward

Mark Inger, GLA

14:15 – 14:25



Next Steps

Susannah Wilks,
Cross River
Partnership

14:25 – 14:30



Historic England Conference - Light: Not more, but better!

- Friday 25th October, 2019
- Bringing together specialists from the lighting, town planning and city management, conservation and cultural programming sectors.
- Platform for sharing best practice and provide case studies that illustrate the possibilities now available to enhance and curate the public realm at night.
- Coinciding with the switch on of *Where Light Falls* at St Paul's Cathedral (an event which aims to tell the story of the people who risked their lives to preserve the country's heritage during the Blitz)
- Supporting the development of Historic England's technical guidance on lighting buildings and places, and helping develop their future [HELM](#) training offer on the public realm.



Historic England

Next Steps

All of today's input will be written up and shared with everyone here, so that you can decide how / who best to take forward.

Any enhanced approach to lighting will need to be undertaken by a range of agencies, so ongoing collaboration will be essential.

THANKS FOR LISTENING

