

Abbey Gardens, 4-6 Abbey Street, Reading, Berkshire, RG1 3BA

Planning Applications applicable:
PL/26/0091



Exterior Lighting Survey and Design Calculation Report

Date of issue – 05.06.2025 Rev A

Contents

Abbey Gardens,
4-6 Abbey Street,
Reading, Berkshire
RG1 3BA

Exterior Lighting Survey
and Calculation Report

Revision. A

05.05.2026

Project No. 2605-17

NOTE for SUPPLIER and
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Company Number: 8255099



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Introduction / project reviewDetails and Information

Client	Randalswood Construction UK Ltd
Project Site address:	Abbey Gardens, 4-6 Abbey Street, Reading, RG1 3BA
Architect / Landscape Architect	SADA Architecture
Planning consultant	HGH Consulting
Planning application No. and details:	PL/26/0091
Ecologist / Report & Bat Survey	Arbtech – Beth Ellison-Perrett

Brief and Planning Conditions

Our brief was to provide a lighting design report for the replacement of the existing exterior lighting of this multi-storey office building in Reading, Berkshire, to satisfy all necessary ecological and dark-zone setting requirements. This report is a sensitive exterior lighting plan for this commercial setting and coordinated with the client's architect, planning consultant and ecologist.

2: Prior to commencement of the development (barring demolition) a report detailing the internal (from windows facing the river) and external lighting scheme and how this will not adversely impact upon wildlife shall be submitted to and approved in writing by the LPA. The report shall include the following figures and appendices: a) A layout plan with beam orientation b) A schedule of equipment c) Measures to avoid glare d) An isolux contour map showing light spillage to 1 lux. The internal lighting (from windows facing the river Kennet) shall thereafter be implemented in accordance with the approved details prior to the first occupation of the relevant buildings and maintained as such thereafter. Reason: To limit the impact of light pollution from artificial light on nature conservation in accordance with paragraph 198 of the NPPF (2024) and Policies EN12 and EN16 of the Reading Borough Local Plan 2019

Survey details

SKR's director Neil Skinner conducted surveys of the site.

1. Desktop survey utilising Google Street view, Google Earth and site plans supplied by the client and project architect.

Report Contents

- Survey report
- Basic 3D model and plans of the site were used in Lighting Industry standard DIALUX EVO to create the lighting plan and subsequent lighting calculations.
- Reflectance values are used and are appropriate for the materials and surfaces encountered.
- Lamps and Luminaires used were those that we can rely on from reputable companies and suppliers for accurate photometric data and technical support.
- Lighting equipment was selected based on quality, reliability, cost for the client, sustainability, maintainability and life cycle.
- Compliance to ILP (Institute of Lighting Professionals) documents:
 - ILP Guidance Note 08/23 Bats and artificial lighting at night
 - GN01_ILP_Guidance_Note_1_the_reduction_of_obtrusive_light_-_2021

Introduction 1.1

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SKR Lighting Design Consultant profile

SKR Lighting Design is in its 13th year of business and is headed up by its founder Neil Skinner.

Neil's career in lighting began with the MSc Light & Lighting, The Bartlett, University College London in 1994 and was sponsored by and worked for THORN Lighting. From 1997 to 2006 he worked in the lighting design consultancy profession for design consultancies, architects and commercial lighting companies. Neil's project experience has ranged from residential, to historic, to large scale commercial and public realm projects in over 20 countries.

Neil is a member of the ILP (Institute of Lighting Professionals).

In recent times, SKR's work has increased in the areas of planning permission and sensitive exterior lighting where dark sky, rural, historic and wildlife issues, such as bats were key factors.

Recent projects for planning have included:

- New build residential single houses & extensions.
- Conservation area projects.
- Sports & Leisure. Including Tennis, Netball, 5-a-side and Padel courts.
- Housing developments.
- Commercial premises and industrial sites.
- Hospitality, hotels and restaurants.
- Rural, listed and historic setting projects.

Locations of these projects recently have been in locations as diverse as Dublin, Kent, Surrey, Cambridgeshire, Northumberland, Wiltshire, Hampshire, Gloucestershire, Yorkshire and London.

Examples of previous projects and reports can be made available for reference, including introductions to past clients for references.

For more information:

<https://www.skrlight.com/>

LinkedIn

<https://www.linkedin.com/in/neil-skinner-b0965b15/>

Survey 2.0

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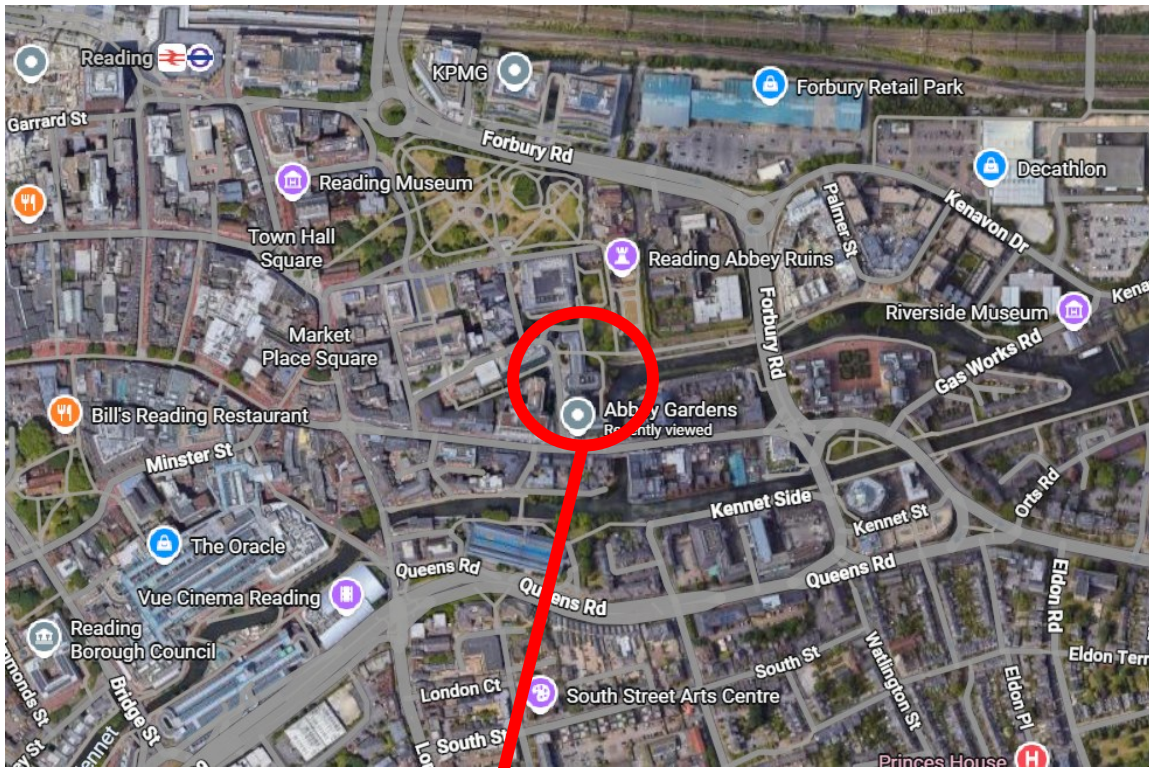
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Survey – Desktop and Site report

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Existing site Desktop survey

The project is set in the centre of the town of Reading, Berkshire.

The site is surrounded by the River Kennet and access roads, including Kings Road and Abbey Street. The area is not a 'Dark-Sky' zone however the scheme will benefit from a suitably sensitive lighting approach because of the riverside and historic setting around it.

The aim of the lighting design is to keep lighting sensitive for wildlife within this habitat while creating suitable lighting for the residential activities of the proposed building.

Survey 2.1

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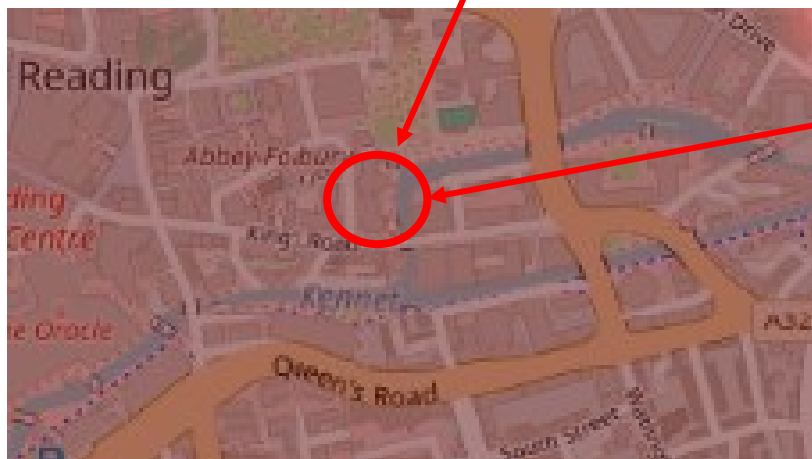
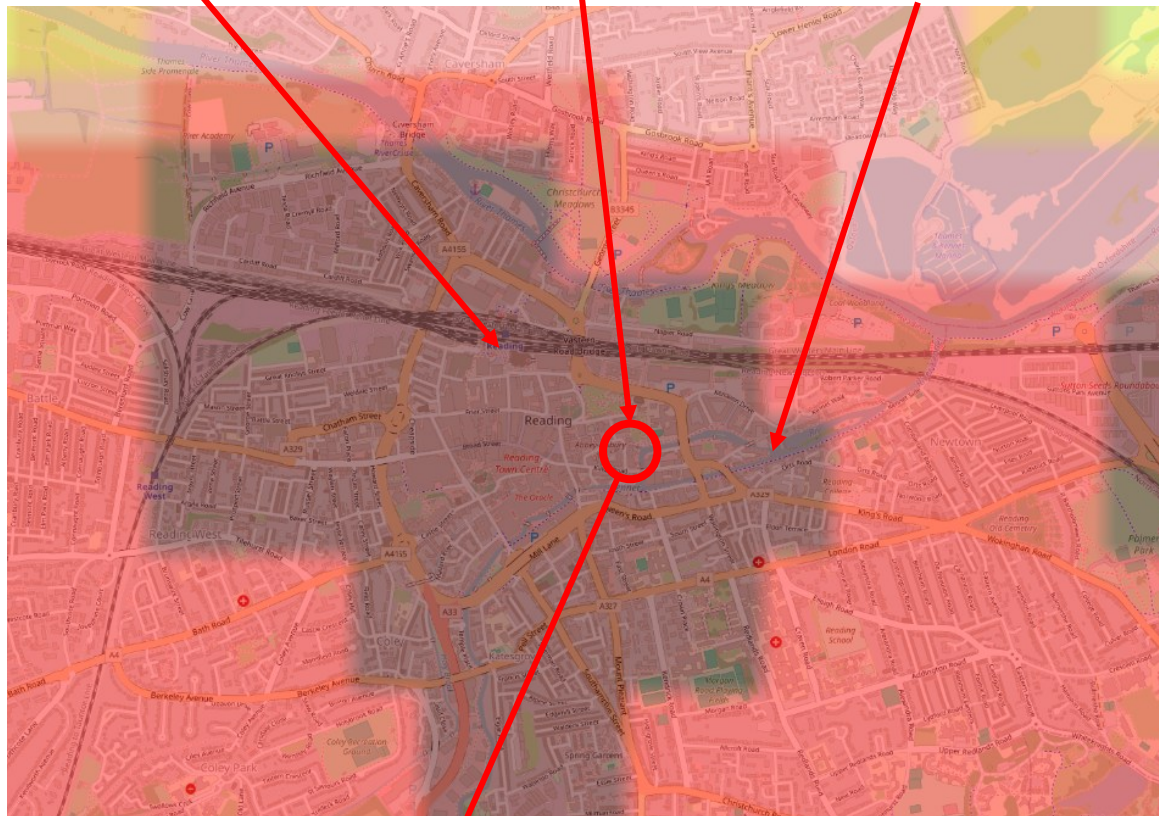
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Reading Train Station

Abbey Gardens

River Kennett



Existing site Desktop survey

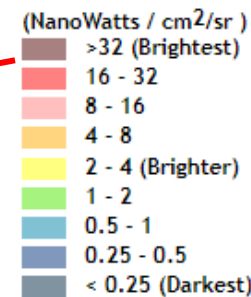
Part of the study within this report is to recognise the location in terms of the surrounding area and current light pollution levels. For this we refer to the CPRE website ('The Countryside Charity' also known previously as the Campaign for Rural England).

<https://www.cpre.org.uk/light-pollution-dark-skies-map/>

As the setting sits in an urban zone, therefore based on ILP guidance, this area would be classed as an E4 zone.

For the basis of the report the project should be weighted more towards the neighbouring zone with the more rigorous requirements, in this case ZONE E3-E2 for best practice.

☒ Night Lights



Each pixel shows the level of radiance (night lights) shining up into the night sky. These have been categorised into colour bands to distinguish between different light levels. Please see the [REPORT](#) for more information on this.

Survey 2.2

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Environmental Zones

It is recommended that Local Planning Authorities specify the following environmental zones for exterior lighting control within their Development Plans.

Table 2: Environmental zones

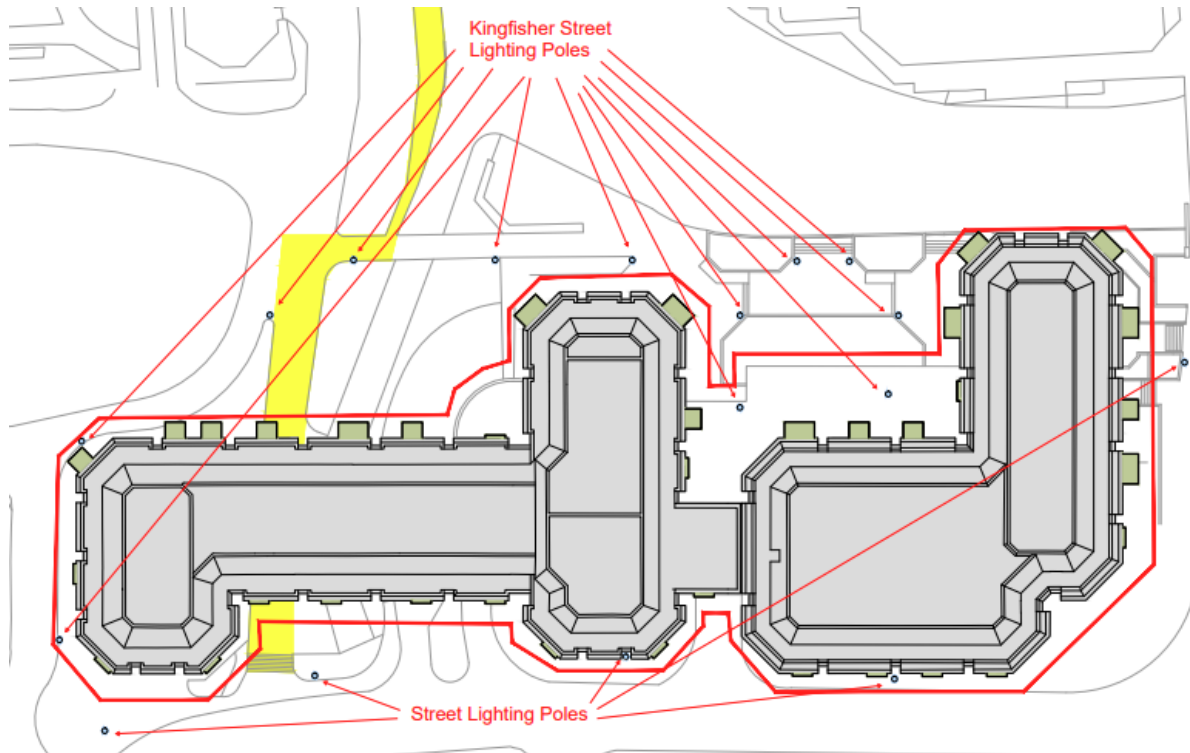
Zone	Surrounding	Lighting environment	Examples
E0	Protected	Dark (SQM 20.5+)	Astronomical Observable dark skies, UNESCO starlight reserves, IDA dark sky places
E1	Natural	Dark (SQM 20 to 20.5)	Relatively uninhabited rural areas, National Parks, Areas of Outstanding Natural Beauty, IDA buffer zones etc.
E2	Rural	Low district brightness (SQM ~15 to 20)	Sparsely inhabited rural areas, village or relatively dark outer suburban locations
E3	Suburban	Medium district brightness	Well inhabited rural and urban settlements, small town centres of suburban locations
E4	Urban	High district brightness	Town / City centres with high levels of night-time activity

As the setting sits in an urban zone, therefore based on ILP guidance, this area would be classed as an E4 zone.

For the basis of the report the project should be weighted more towards the neighbouring zone with the more rigorous requirements, in this case ZONE E3, however due to the additional ecological requirements SKR are weighting this as a E2-E3 zone for best practice where possible.

Project scope and requirements for lighting strategy:

- Existing office building being repurposed as a residential setting.
- Safety wayfinding and security for users of the facility.
- Lighting for exterior landscape areas and access.
- Light that is applicable to the area and environment.
- Sensitive application of light for key areas.
- <2700k very warm white light sources will be used.
- Sustainable, reliable and maintainable LED low energy light sources are used.
- Lighting locations where possible will utilise existing wired locations as much as possible.
- Light control, switching, PIR sensor and timing to be used as required for working purposes.
- Light levels for the distribution of light around the site and spill up to and beyond any boundaries.
- Light levels cut off to below <1.0 lux at or before boundaries or for this project, into the rivers.
- Colour LUX lighting scales are shown for guidance.
- All the lighting are down-facing luminaires with zero-Up-light.
- All specifications can be found in section 4 of this report.



Project scope of work

- This plan shows the existing lighting plan for the 4m tall pole-top wide distribution luminaires.
- Only the 11 columns on the East (River) side are being modified to meet the conditions. See the subsequent design section 2 for more information.
- The remaining 7 columns to the North, West and South sides will be changed only if required after consultation with Berkshire Road and Street Lighting engineers.

Survey 2.4

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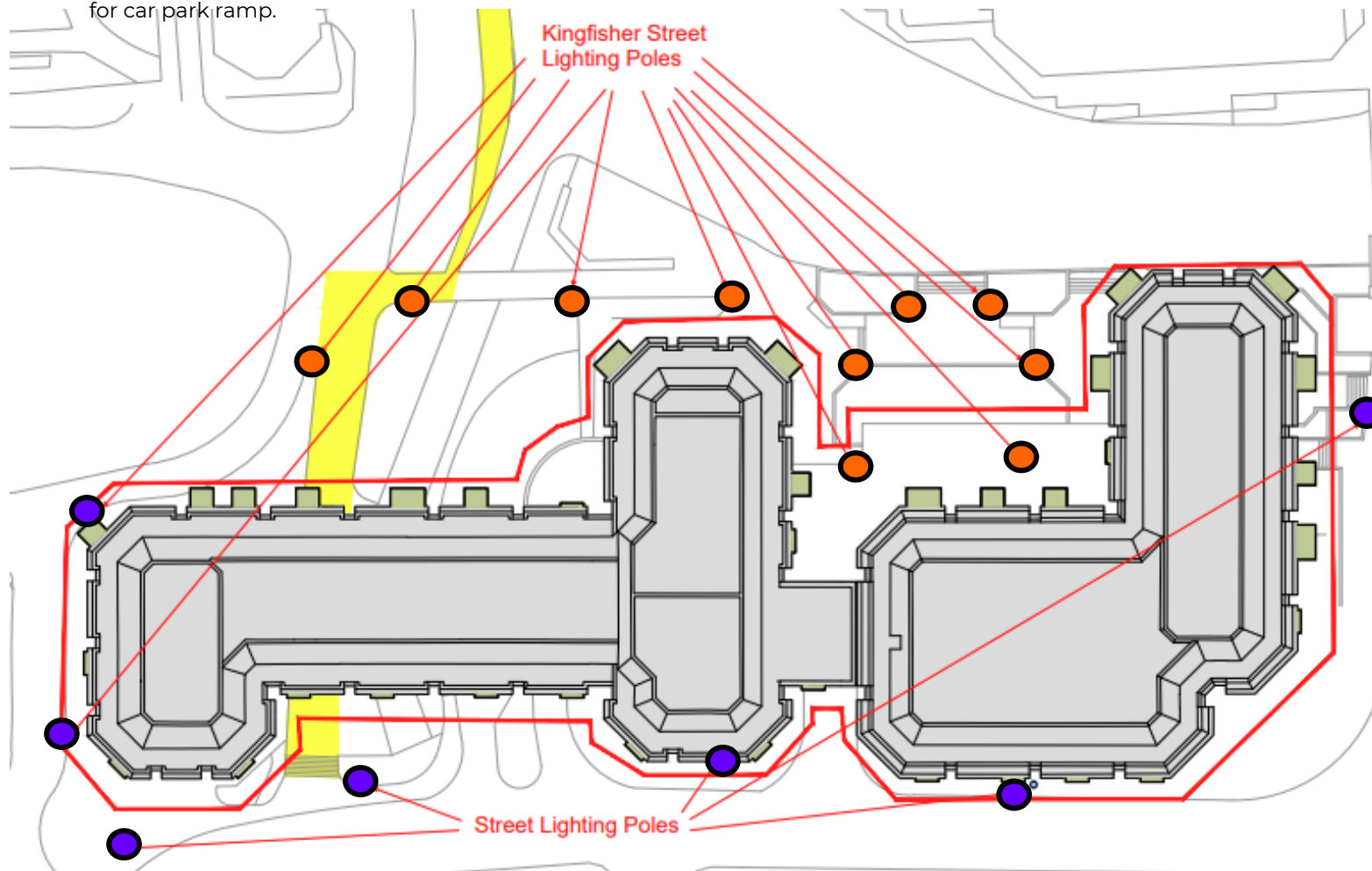
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-  **EX1** – 4.0m Lighting column.
-  **EX2** – Wall mounted floodlight.
-  **EX3** – Wall mounted emergency exit bullhead light.
-  **EX4** – Ceiling mounted linear downlight.
-  **EX5** – Wall mounted luminaire for car park ramp.
-  **EX1** – NOT INCLUDED IN STRATEGY

Street & ground site plan – existing luminaires – EX1 columns only



Survey 2.5

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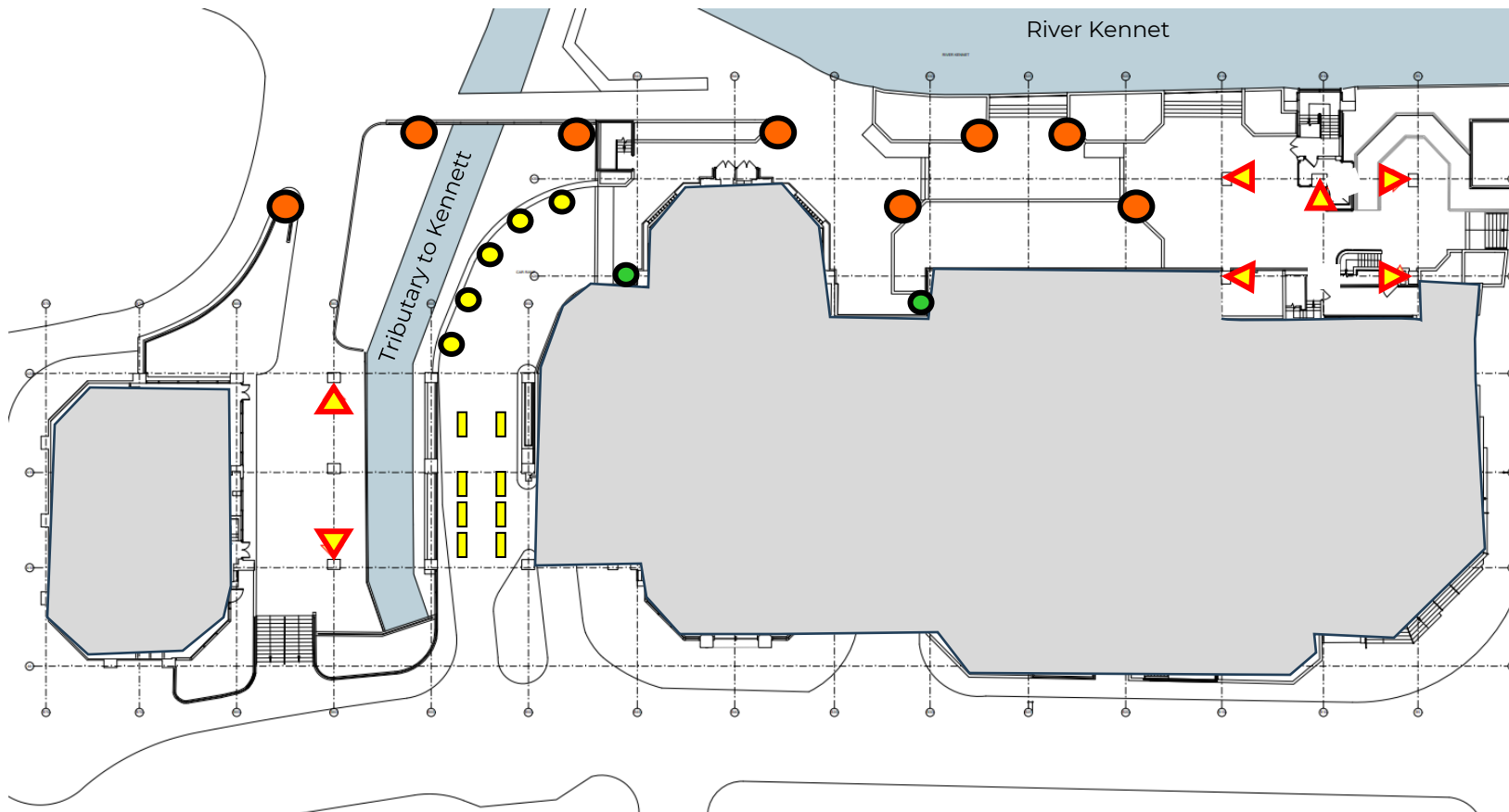
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Ground & lower ground site plan – All other existing luminaires

-  **EX1** – 4.0m Lighting column.
-  **EX2** – Wall mounted floodlight.
-  **EX3** – Wall mounted emergency exit bullhead light.
-  **EX4** – Ceiling mounted linear downlight.
-  **EX5** – Wall mounted luminaire for car park ramp.



Survey 2.6

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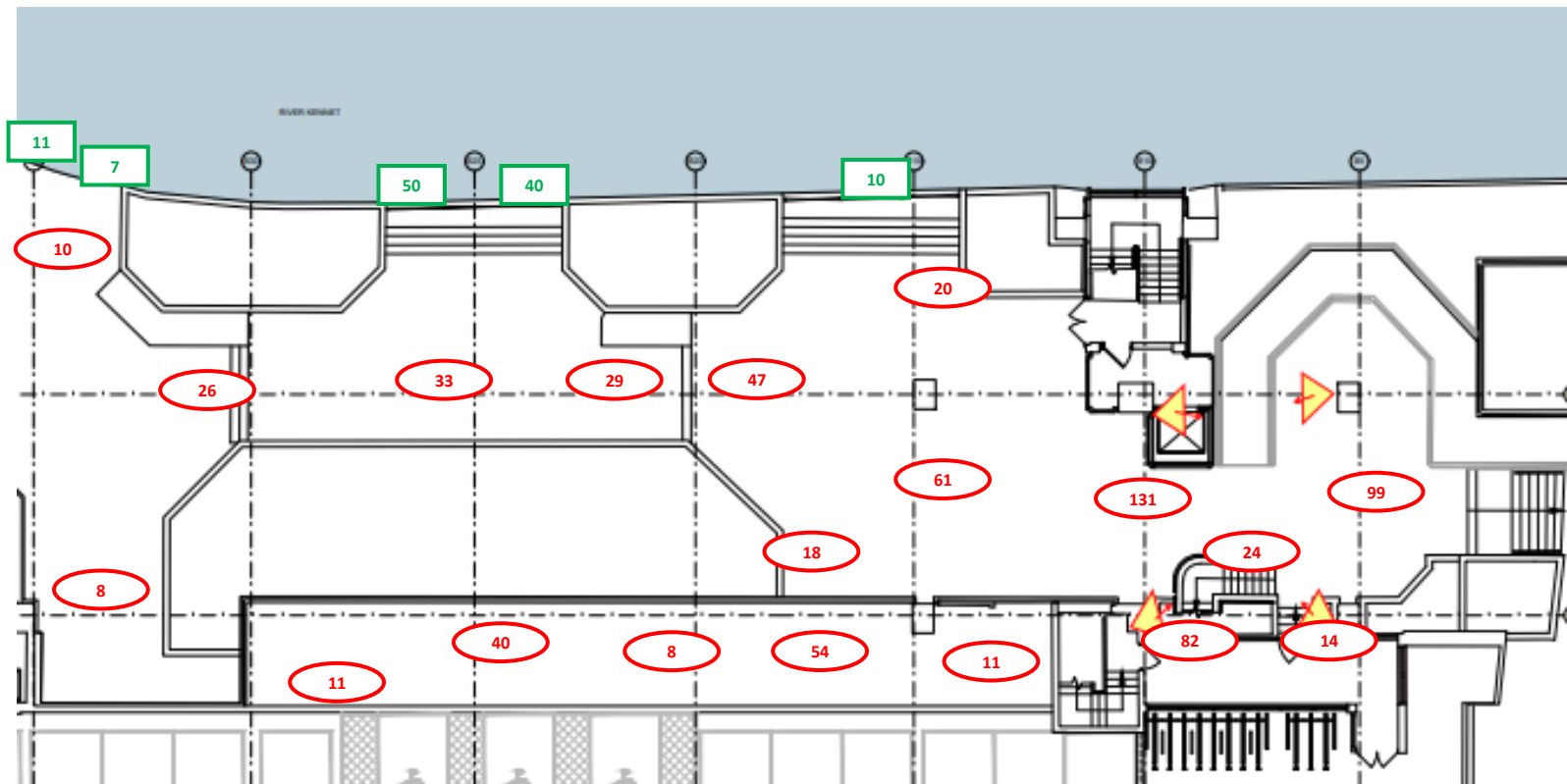
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Measured light levels on site, light level key:

Lower ground site plan – existing light levels

- XX** Green Box = Vertical light level at head height - LUX
- XX** Red Ellipse = Horizontal light level on ground - LUX



Key issues with existing scheme light levels:

- Light levels at river boundaries are too high.
- Excessive light levels in places.
- Direct glare and light spill into river.

Survey 2.7

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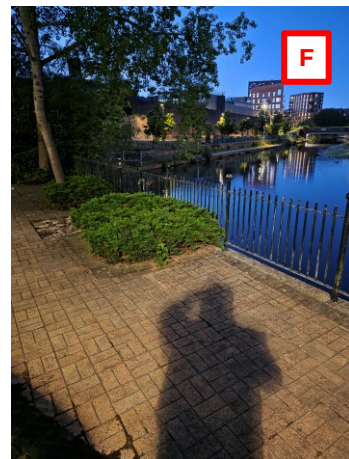
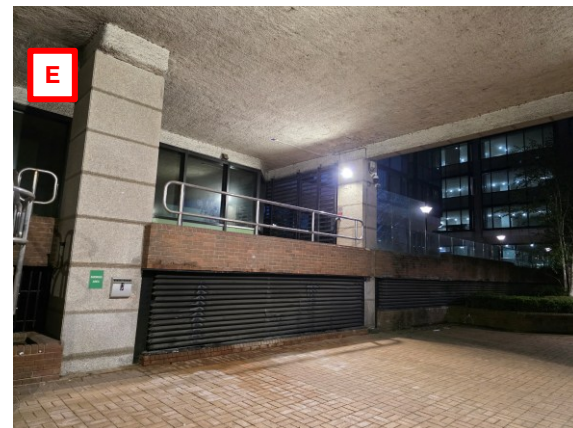
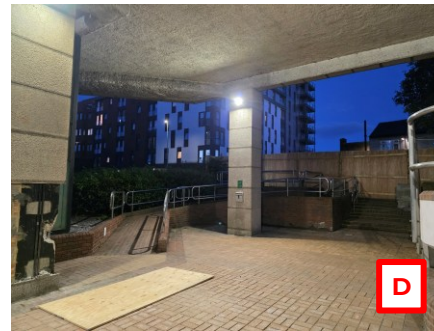
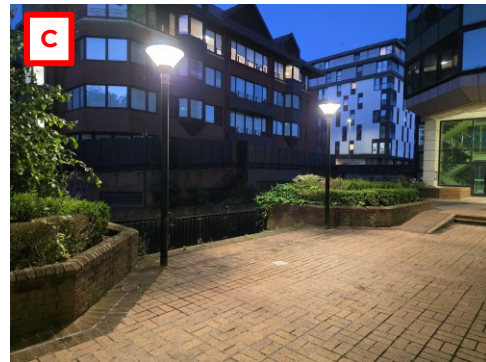
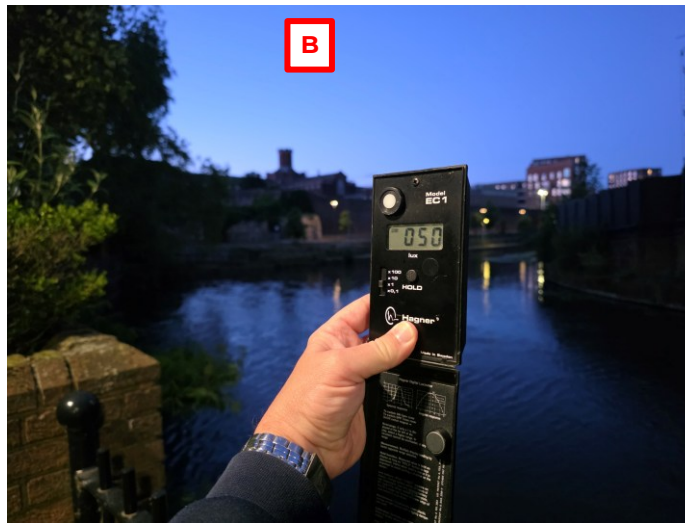
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- [illegible]



Site survey – Daylight

Current lighting site survey:

- A. Many existing luminaires have poor maintenance..
- B. Excessive light spill to river.
- C. Lighting uniformity is good, but 4000k cool white and too much spill light into the river is unacceptable.
- D. General amenity floodlighting is uncontrolled, 4000k cool white and glaring. This also spills into the river.
- E. Glaring floodlights at eye level on upper walkway.
- F. Light spill into river space.

Survey 2.8

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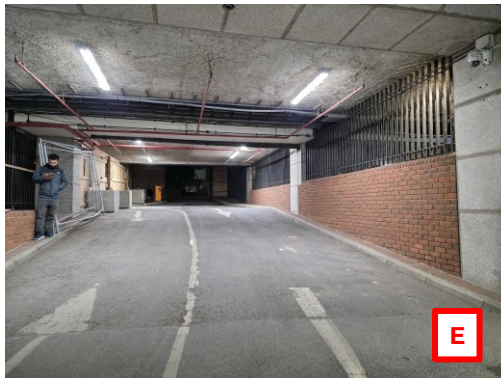
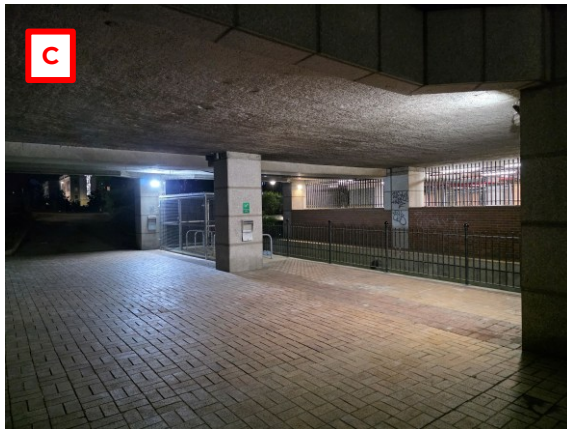
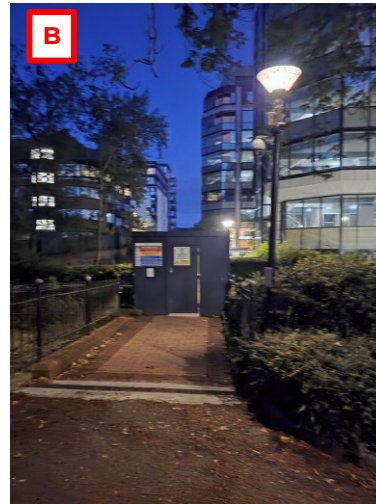
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Survey details:

Date: 02.06.2026
Time: 21.00 to 23.00
Weather: Dry and cool

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Site survey – Dusk & Night

Current lighting site survey:

- A. Excessive light spill to river tributary.
- B. Lighting uniformity is good, but 4000k cool white and too much spill light into the river is unacceptable.
- C. General amenity floodlighting is uncontrolled, 4000k cool white and glaring. This also spills into the river.
- D. Glaring wide distribution 4000k bulkhead lights.
- E. Very bright linear batten luminaires over light the space and throe excessive amounts of light into tributary.

Survey 2.9

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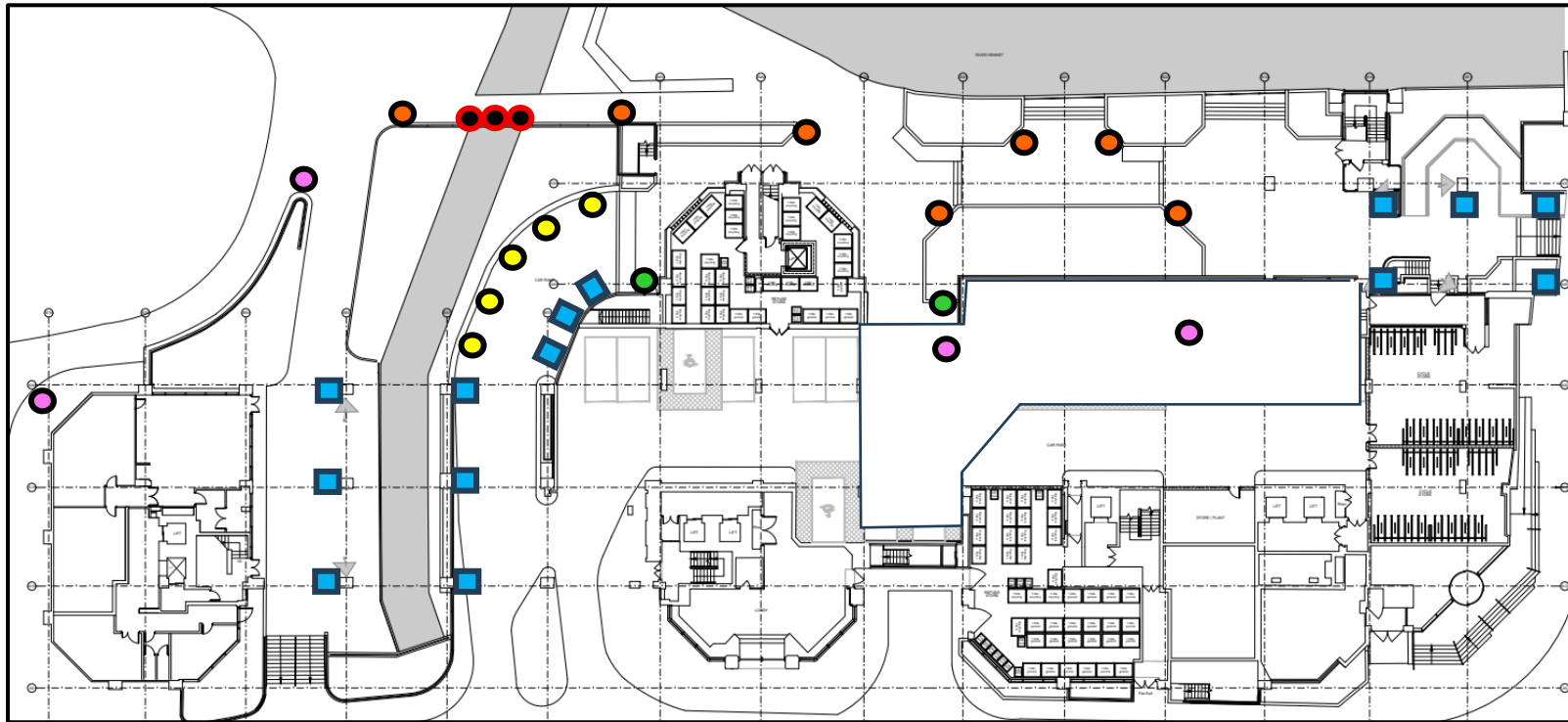
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Strategy and Design

Site plan - exterior lighting strategy



Outline scope and requirements for buildings and access:

- Safety wayfinding and security for users of the facility.
- Lighting for exterior landscape access.
- Light that is applicable to the area and environment.
- Sensitive application of light for key areas.
- <2700k very warm white light sources will be used.
- Sustainable, reliable and maintainable LED low energy light sources are used.
- Lighting locations in the site and positions on façade precise locations to be coordinated by architect / landscape architect.
- Light control, switching, PIR sensor and timing to be used as required for working purposes.
- Light levels for the distribution of light around the site and spill up to and beyond any boundaries.
- Light levels cut off to below <1.0 lux at or before boundaries.
- Colour LUX lighting scales are shown for guidance.
- All the lighting are down-facing luminaires with zero-Up-light.
- All specifications can be found in section 4 of this report.
- This is a lighting fixture location plan for guidance. Exact setting out by architect / landscape architect.

● **EX1a** – 4.0m Lighting column, with 3No downlight spotlights.

● **EX1b** – 4.0m Lighting column, with 4No downlight spotlights.

■ **EX2** – Wall mounted floodlight.

● **EX3** – Wall mounted emergency exit bullhead light.

● **EX4** – Wall mounted luminaire for car park ramp.

● **EX5** – Footbridge mini-downlight projector

Design 3.1

Abbey Gardens,
4-6 Abbey Street,
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RG1 3BA

Exterior Lighting Survey
and Calculation Report

Revision. A

05.05.2026

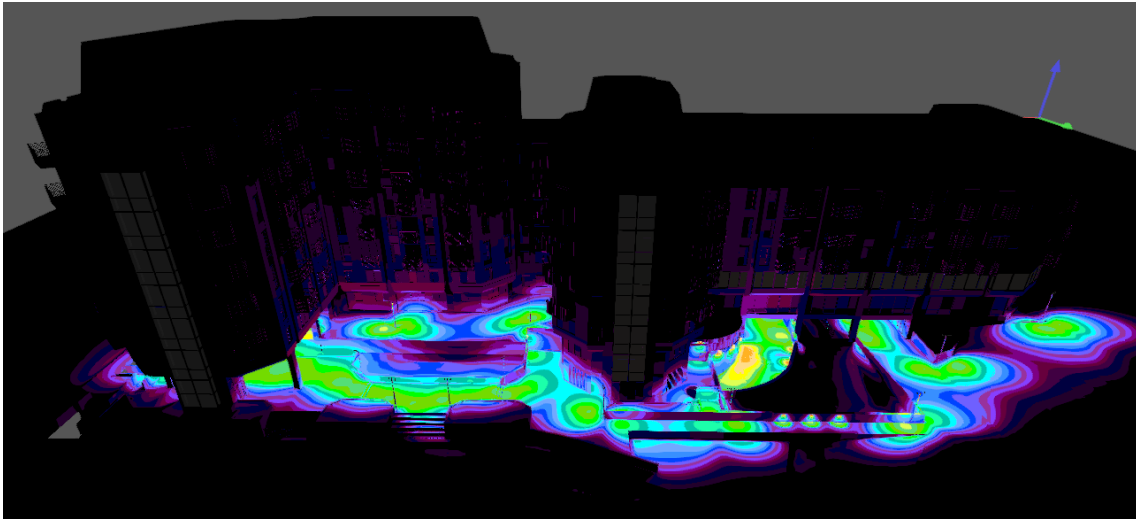
Project No. 2605-17

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Site plan - night map ALL LIGHTING ON

This page shows the effective 'light map' from above but as contoured coloured lines showing indicated light levels with ALL lighting ON full.

The scheme control will ensure that lighting is only on when required or triggered by a PIR as stated in the following pages.

The lighting effects and distribution provide orientation, task and guidance, while still allowing significant areas of necessary dark (<1.0lux) for flying and ground wildlife as stipulated by the project ecologist. This meets the requirements for ground wildlife and any foraging bats along the riverside, treelines and boundaries.

Design 3.2

Abbey Gardens,
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Revision. A

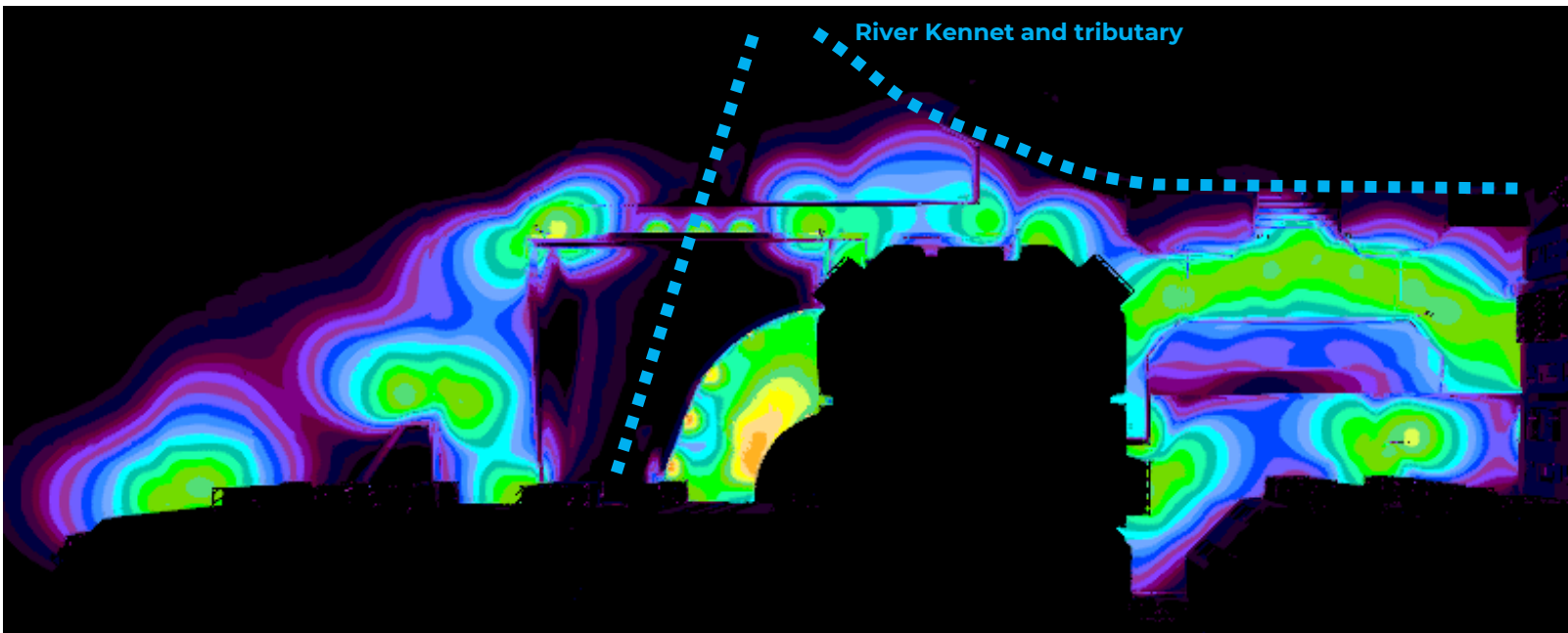
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Isolux contour chart; colours indicating illumination lux level.



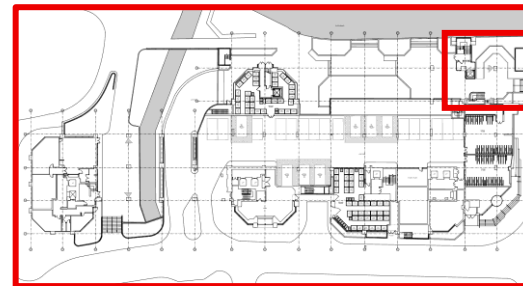
East Entrance

EX2 Wall mounted downlight floodlight

Control

All luminaires and areas to be controlled by the building lighting control system, timeclock and light sensor where and when appropriate.

East entrance
ALL LIGHTING ON



Design 3.3

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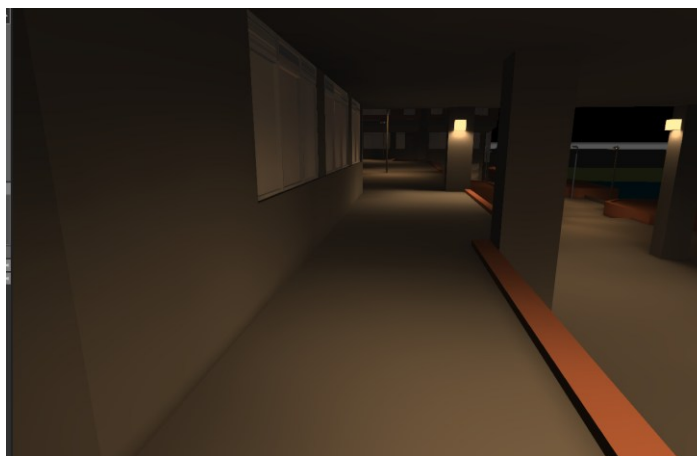
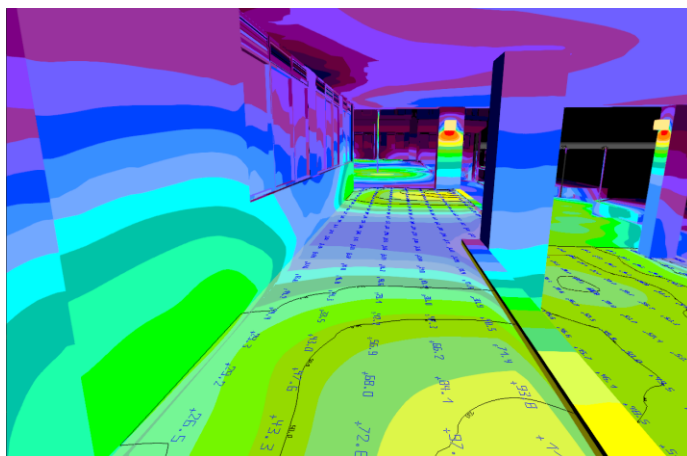
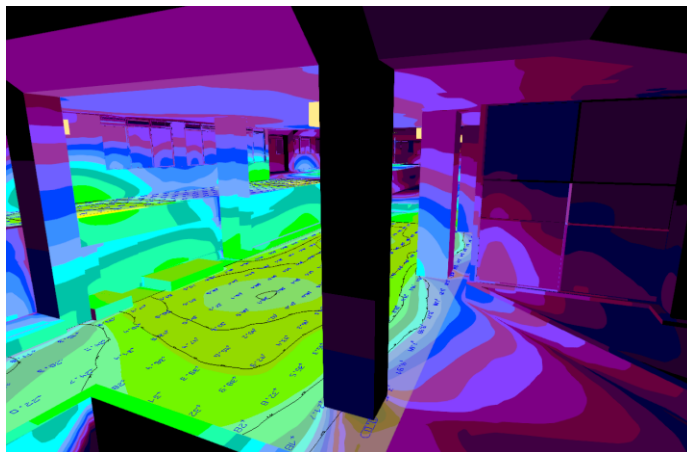
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Main Plaza and Upper Plaza

EX1a – 4M High columns with 3No adjustable downlight spotlights.

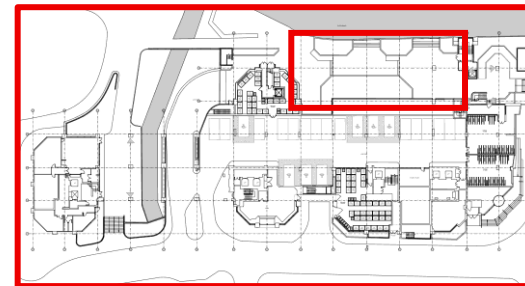
EX1b – 4M High columns with 4No adjustable downlight spotlights.

EX3 - Wall mounted emergency exit bullhead light

Control

All luminaires and areas to be controlled by the building lighting control system, timeclock and light sensor where and when appropriate.

Central plaza
ALL LIGHTING ON



Design 3.4a

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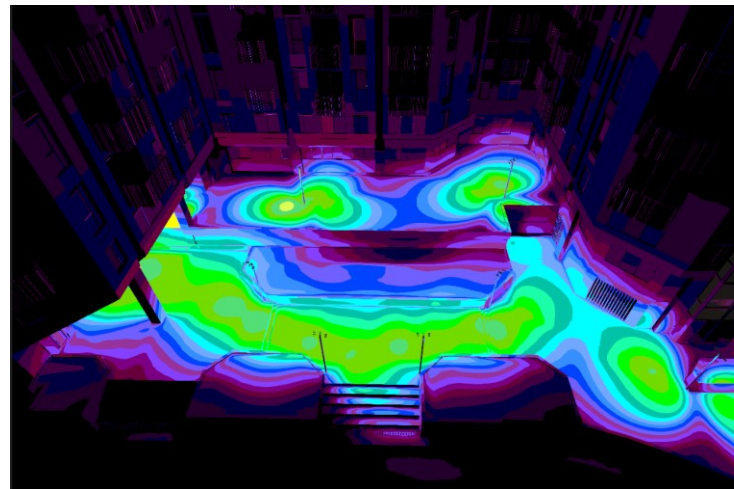
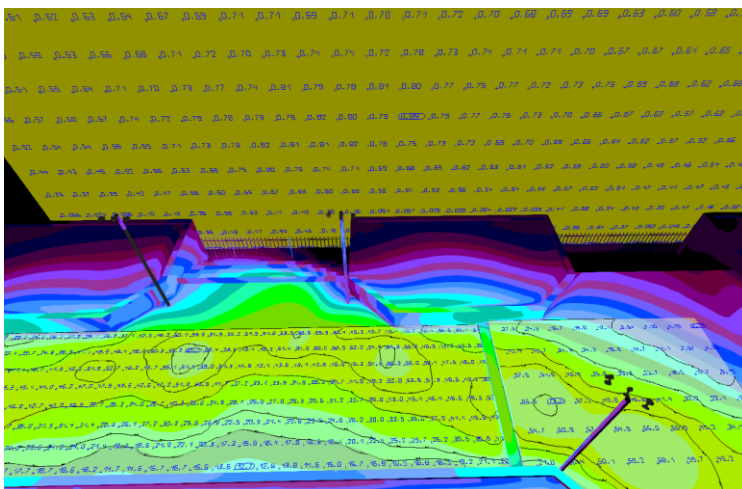
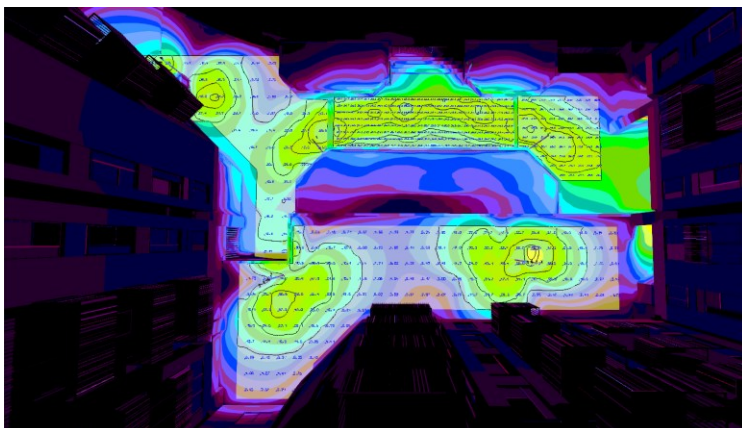
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Main Plaza and Upper Plaza

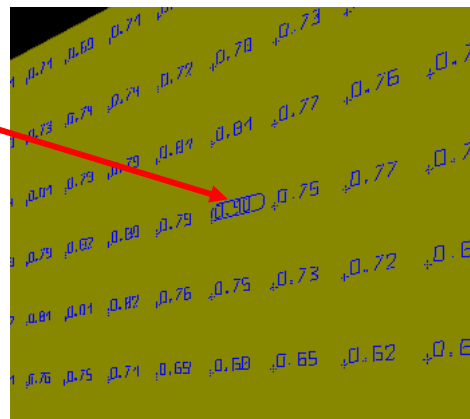
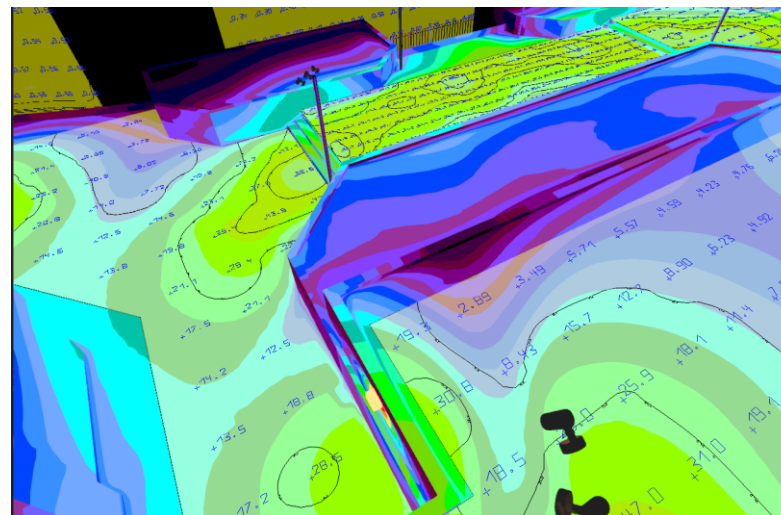
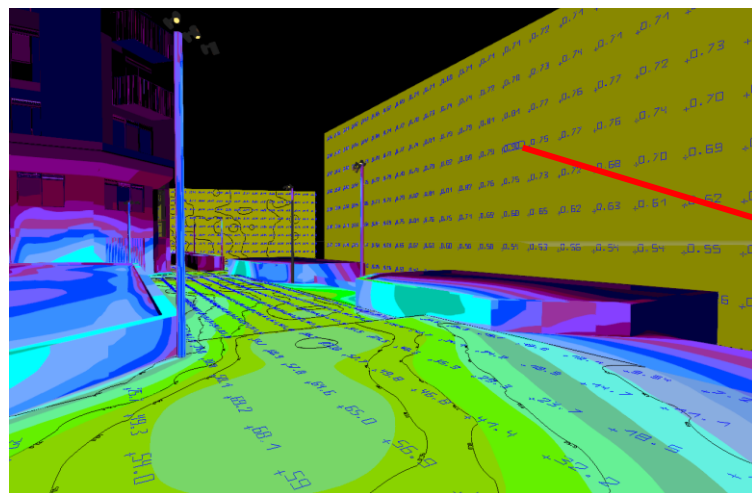
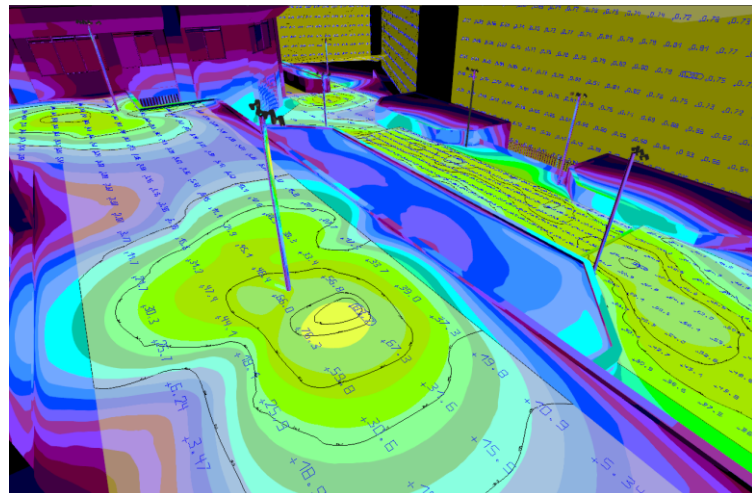
EX1a – 4M High columns with 3No adjustable downlight spotlights.

EX1b – 4M High columns with 4No adjustable downlight spotlights.

EX3 - Wall mounted emergency exit bullhead light

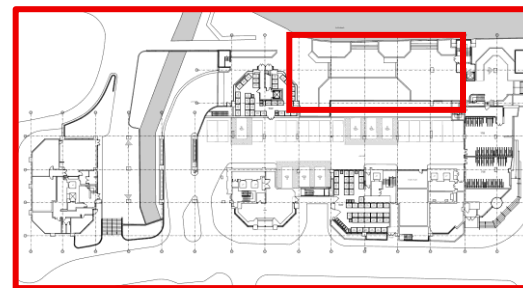
Control

All luminaires and areas to be controlled by the building lighting control system, timeclock and light sensor where and when appropriate.



This vertical lighting calculation plane shows light spill towards the river. The maximum vertical light level is only 0.9LUX.

Central plaza ALL LIGHTING ON



Design 3.4b

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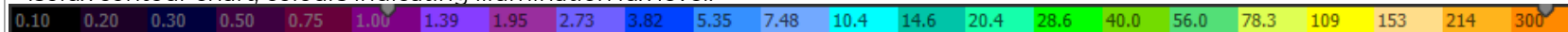
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Isolux contour chart; colours indicating illumination lux level.

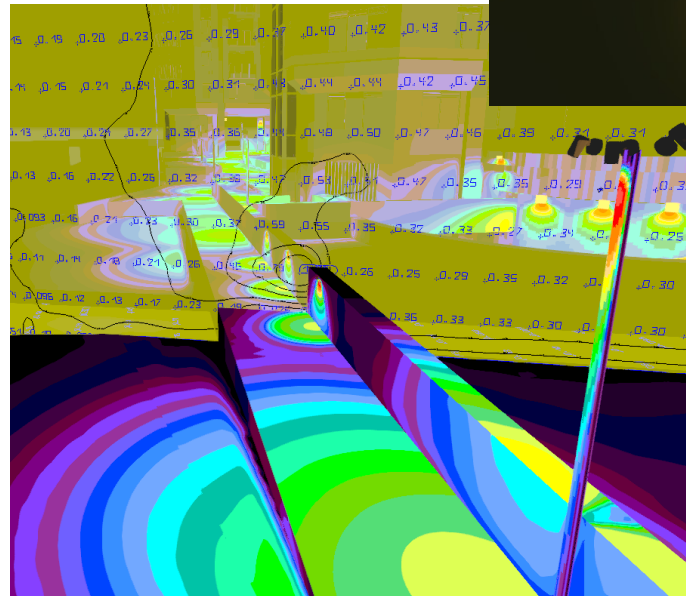
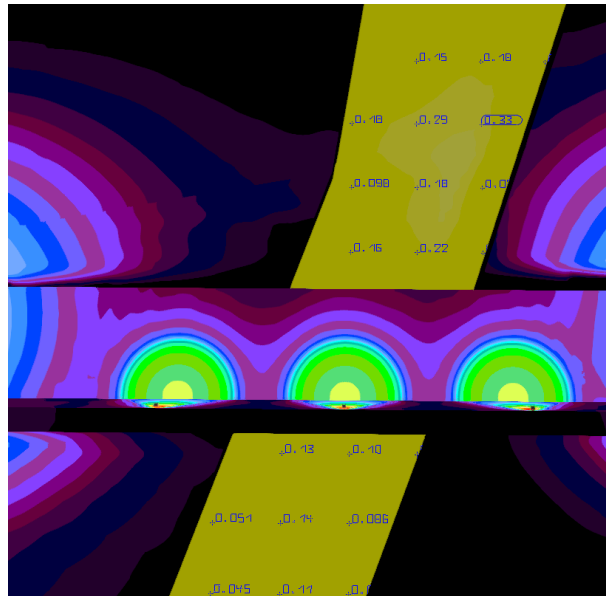
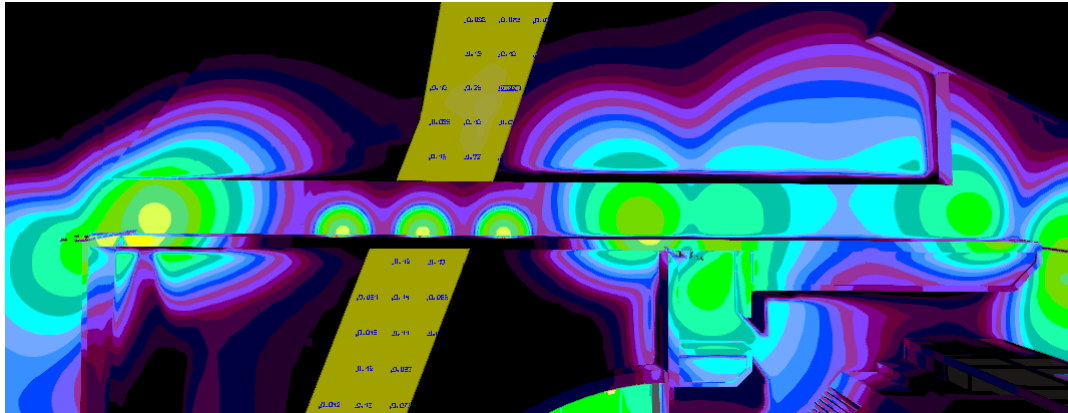


Footbridge

EX1a -4M High columns with 3No adjustable downlight spotlights.
EX5 Micro surface mounted adjustable downlight spotlights

Control

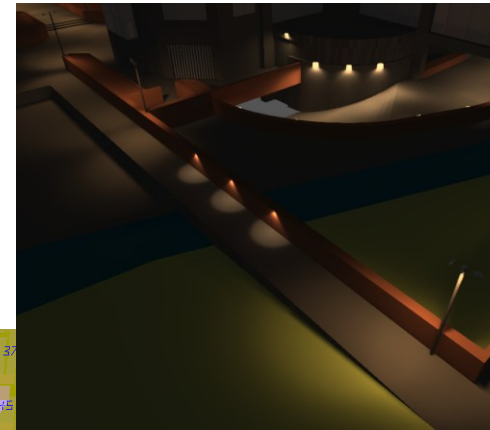
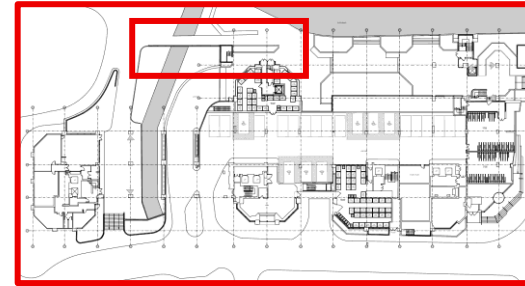
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Isolux contour chart; colours indicating illumination lux level.



Footbridge ALL LIGHTING ON



To avoid light spill light into the tributary, small EX5 downlights are fitted to the footbridge handrails.

Design 3.5

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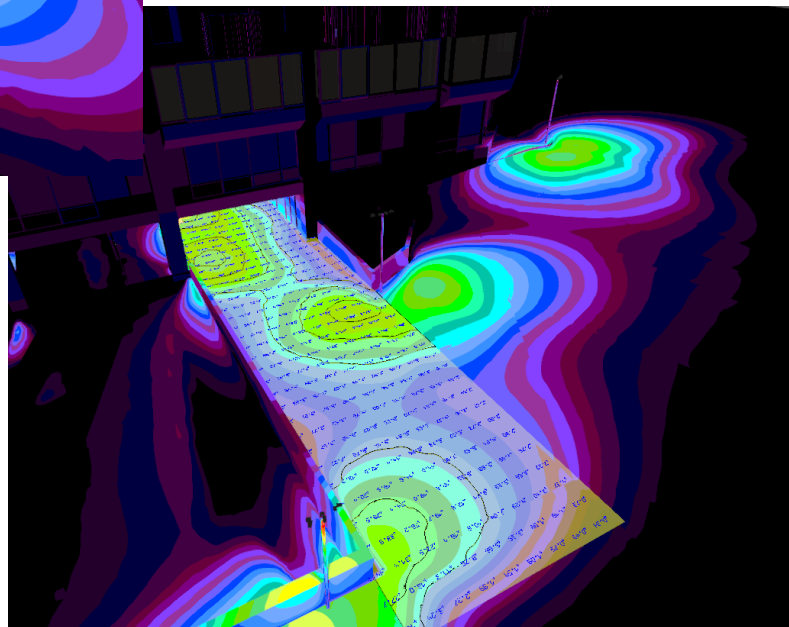
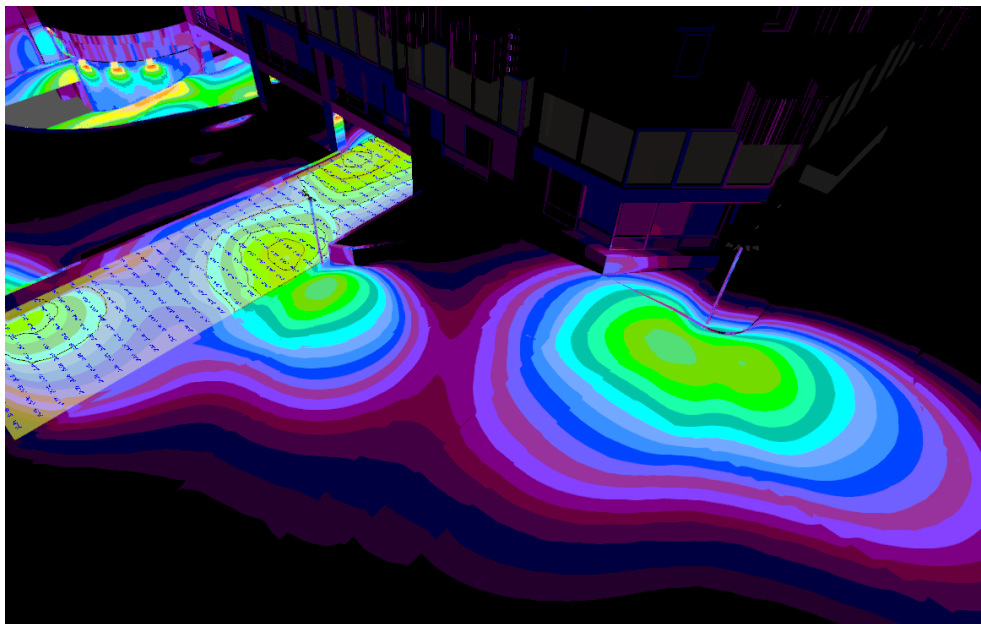
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EX1b – 4M High columns with 4No adjustable
downlight spotlights.

Control

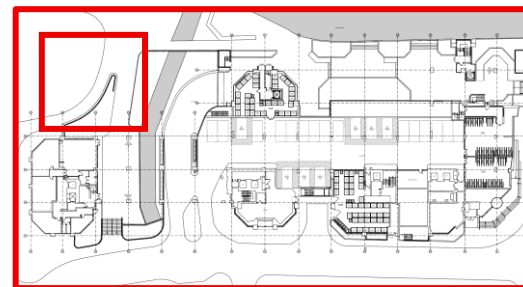
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building lighting control system, timeclock and
light sensor where and when appropriate.



Isolux contour chart; colours indicating illumination lux level.



Northeast Corner ALL LIGHTING ON



Design 3.6

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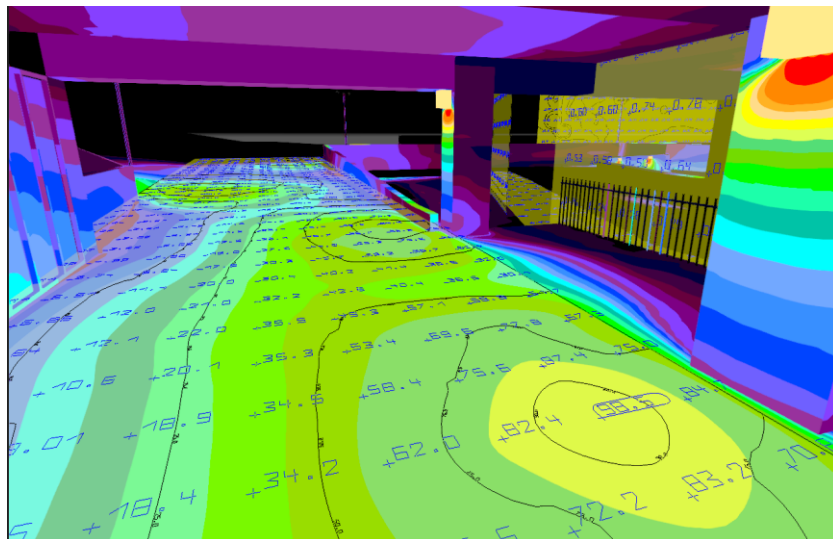
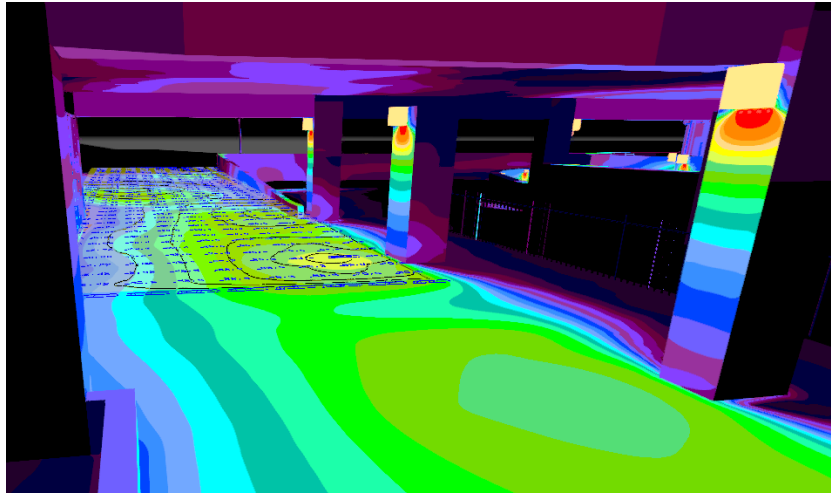
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EX2 Wall mounted downlight floodlight

Control

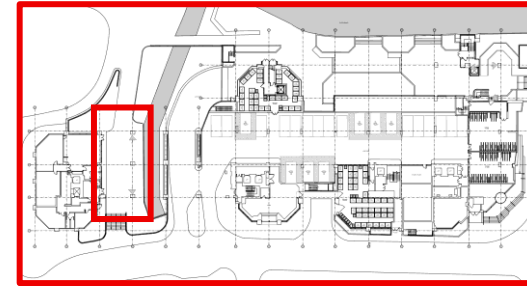
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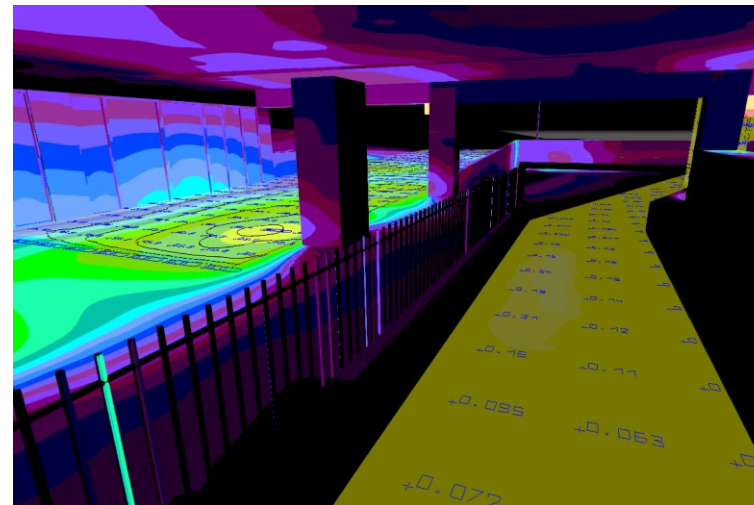
Isolux contour chart; colours indicating illumination lux level.



West to East pedestrian route ALL LIGHTING ON



To avoid light spill light into the tributary, the EX2 wall mounted downlights are to be mounted on the pathway side of the columns.



Design 3.7

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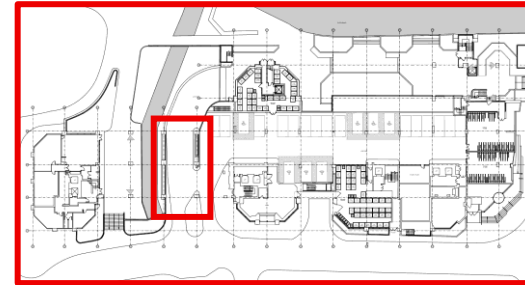
EX2 Wall mounted downlight floodlight

Control

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Car Park entrance
ALL LIGHTING ON



**Design
3.8**

Abbey Gardens,
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Exterior Lighting Survey
and Calculation Report

Revision. A

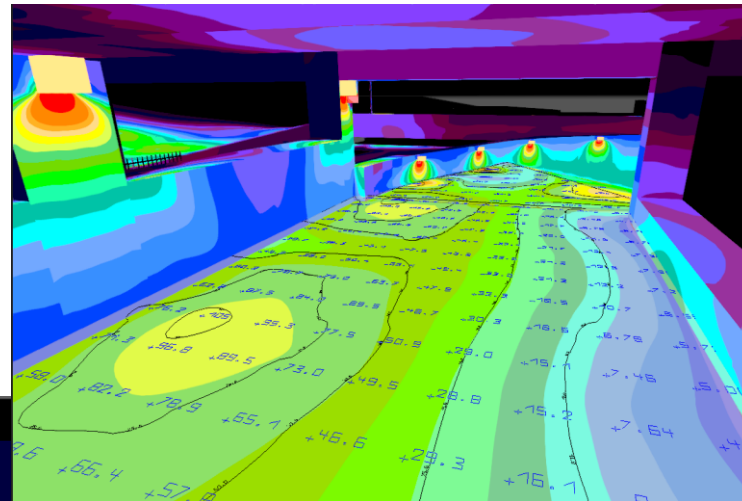
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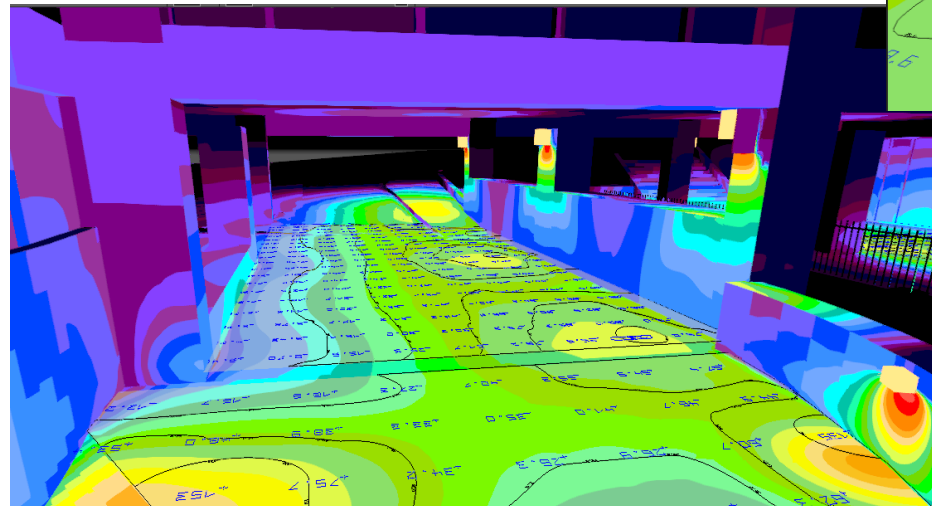
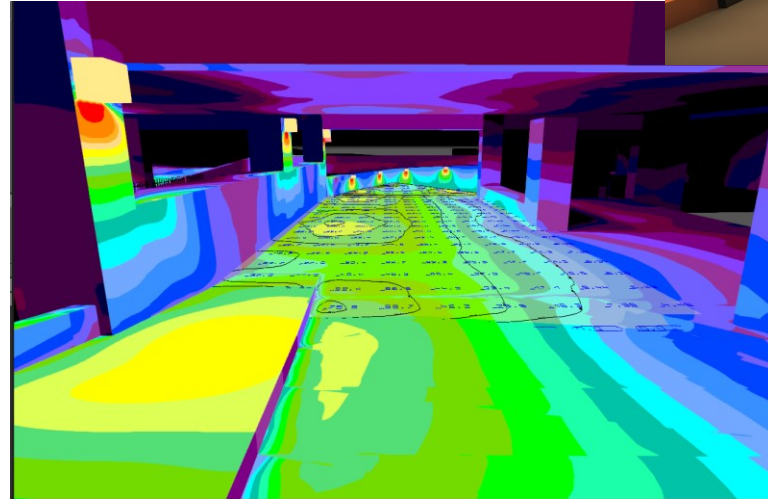
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To avoid light spill light into the
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downlights are to be mounted on
the roadside of the columns.



Isolux contour chart; colours indicating illumination lux level.

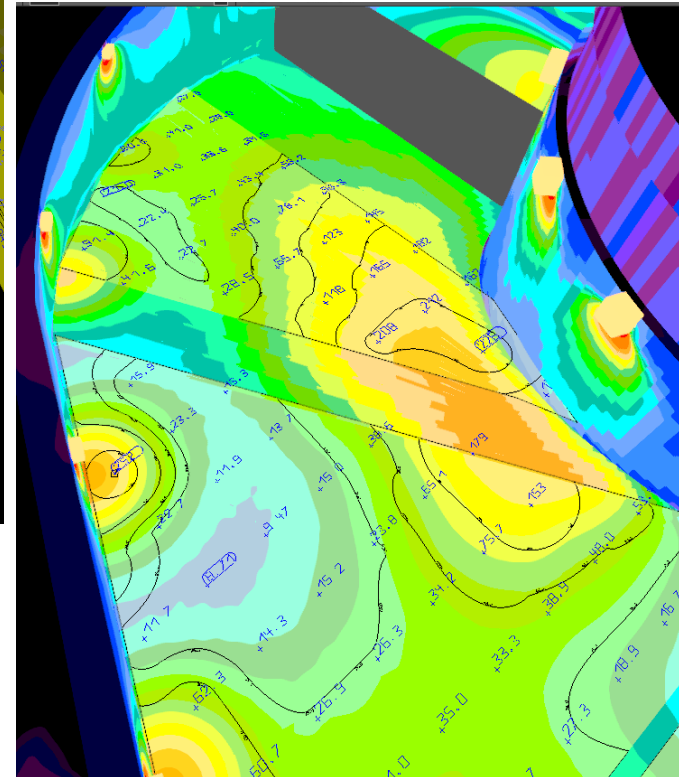
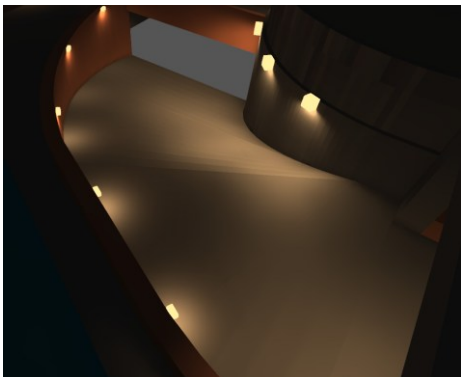
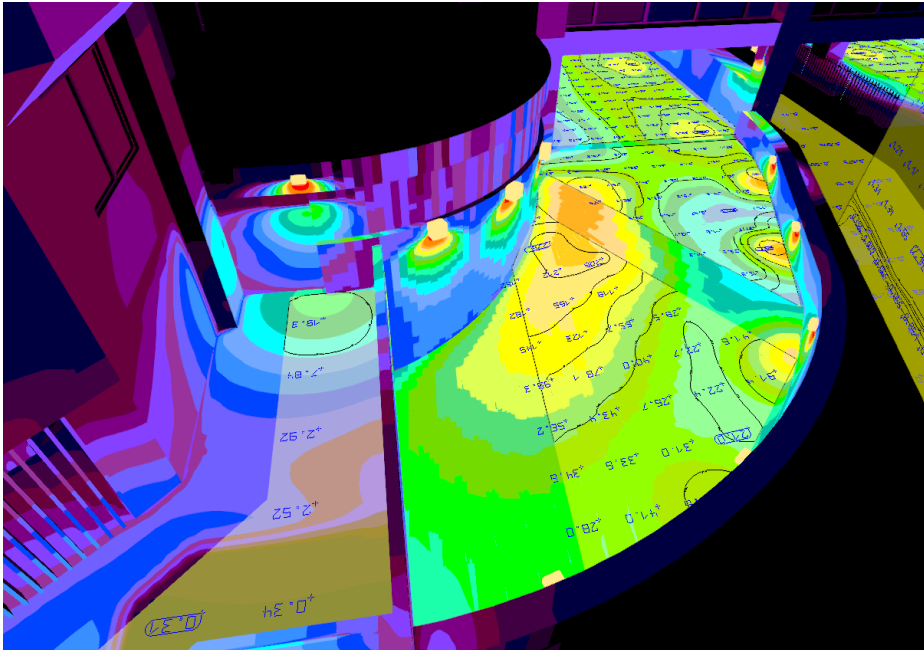


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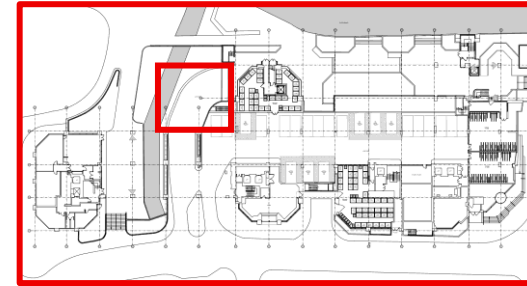
EX2 Wall mounted downlight floodlight
EX4 Wall mounted downlight

Control

All luminaires and areas to be controlled by the building lighting control system, timeclock and light sensor where and when appropriate.



Car park ramp
ALL LIGHTING ON



Design 3.9

Abbey Gardens,
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Exterior Lighting Survey
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Isolux contour chart; colours indicating illumination lux level.



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Lighting Design

Previous Interior Lighting Summary

- Previous use was commercial offices.
- Interior lighting levels would be 300-500LUX.
- Colour temperature 3500-4000k
- Fluorescent or retrofit LED.
- Few blinds or curtains.
- Significant light spill from the offices would have been significant over many years into the river environment.
- Image below taken by SKR 1-2.06.2026 showing some interior spaces on while unoccupied or during maintenance works.



New Interior Lighting Summary

- For residential purposes only.
- Interior lighting levels would be 50-100LUX ave depending on the room and use.
- Colour temperature of lighting to be installed would be 2700k.
- All interior lighting circuits to be dimmable.
- All LED.
- New apartments will have smaller windows therefore less light will emit (See architect's details).
- All apartments would have blinds and / or curtains.
- Significantly reduced light spill from the apartments due to lower occupancy and hours of use.
- Image below taken by SKR on a similar residential canal side project in Oxford 2023 with a significant BAT condition. This shows a typical scene of apartments either occupied or unoccupied.



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Lighting Times and Control

Timer to be set to switch off at 20.00hrs.

LIGHTS ON = 06.30 if still dark or at Dusk (Via daylight sensor).

LIGHTS OFF = 22.30

Override via PIR for safe access for controlled zoned areas as required by the building operator. .

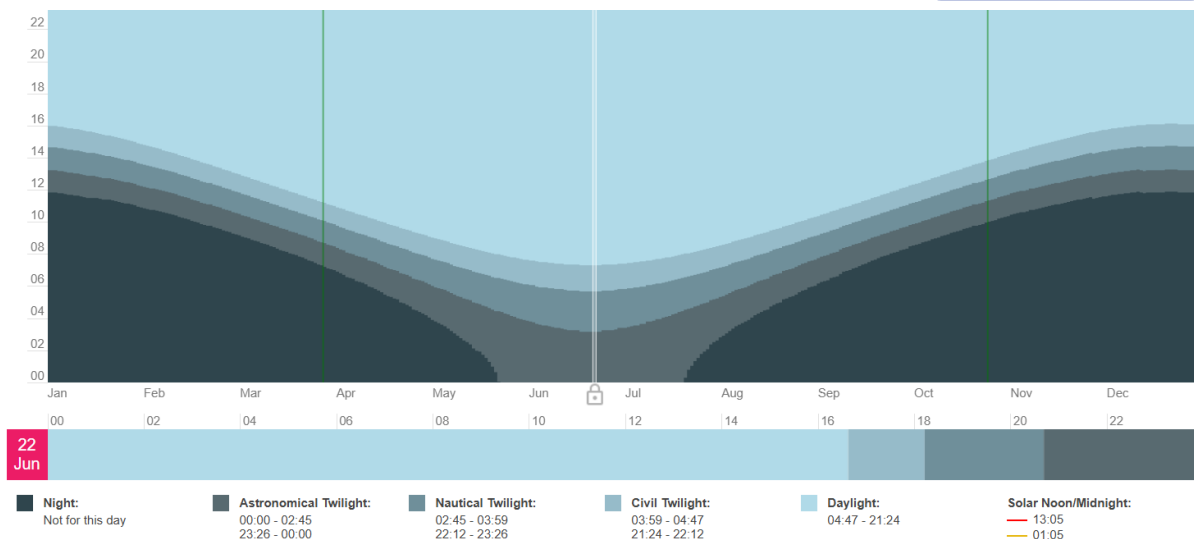
Suggested and approximate annual timing and hours of use (Note: To be confirmed by client after discussion with Reading Council):

NOTE: Bat activity is also temperature related therefore the table below is only a general monthly rough guide.

Month	Approx. Sunrise/Set	AM ON/OFF	PM ON/OFF	Ave. hrs/night	Bat activity
Jan	08.00-16.30	06.30-08.00	16.30-22.30	7.5	Bat hibernation
Feb	07.30-17.30	06.30-07.30	17.30-22.30	6.0	Bat hibernation
Mar	06.30-18.15	06.30-07.30	18.15-22.30	4.0	Low bat activity
Apr	05.45-20.15	N/a	20.15-22.30	2.25	Medium bat activity
May	05.00-21.00	N/a	21.00-22.30	1.5	High bat activity
Jun	04.30-21.30	N/a	21.30-22.30	1.0	High bat activity
Jul	05.00-21.00	N/a	21.00-22.30	1.5	High bat activity
Aug	06.00-20.15	N/a	20.15-22.30	2.25	High bat activity
Sep	06.45-19.00	06.30-06.45	19.00-22.30	3.75	Medium bat activity
Oct	07.30-18.00	06.30-07.30	18.00-22.30	5.5	Low bat activity
Nov	07.30-16.00	06.30-07.30	16.00-22.30	7.5	Bat hibernation
Dec	08.00-15.45	06.30-08.00	15.45-22.30	8.25	Bat hibernation

2026 Sun Graph for Reading

Rise/Set Times Day/Night Length



Design 3.11

Abbey Gardens,
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Exterior Lighting Survey
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Revision. A

05.05.2026

Project No. 2605-17

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E: info@skrlight.com Web:
www.skrlight.com

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Company Number: 8255099

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Specification 4.0

Abbey Gardens,
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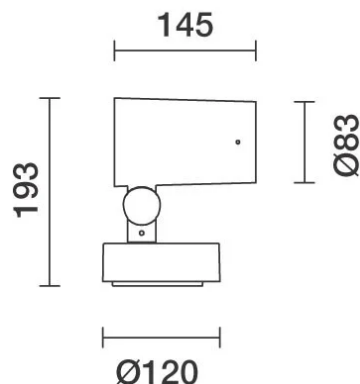
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Lighting Specifications and guidelines



**45° cylindrical
screen accessory**



Manufacturer / Supplier:
Luminaire Name:
Luminaire Catalogue No:
Colour / Finish:
IP Rating:
IK Rating:
Max Power Watt:
LED Luminaire lumen output:
Efficacy:
Voltage to driver:
Light source colour:
CRI (Colour rendering Index):
Lamp life (Hrs & L):
Warranty (See manufacturer):
Construction / Materials:
Cooling Management:
Weight:
Control method:
Beam angle / light distribution:

iGuzzini
Palco InOut
EH93.04.BD0626
BlackTBC
IP66
IK07
10.9W
665lm
61lm/W
2700k
80
50,000hr
5 Year
Aluminium
Passive
1.9Kg
Dali-dim Or Casambi (TBC)
Wide flood 50°

Description and Use:

Column mounted adjustable
downlight spotlights, with 45°
cylindrical screen.

EX1a = 3No Spotlights per column
EX2 = 4No Spotlights per column

Accessories:

X253 45° cylindrical screen

T-bar, clamp and fixing
accessories, contractor to
coordinate with IGUZZINI.

Contact:

Ben Dewey
07850369713
Ben.dewey@iguzzini.com

Ref: EX1a & EX1b

Specification 4.1

Abbey Gardens,
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SKR guidance note:

This specific luminaire has been used for the purposes of lighting calculation and proposed performance criteria, based on data available at the time of design and issue of this report.

If equipment becomes unavailable or even obsolete in the future, any alternative luminaire and changes to the specification will follow similar good lighting practice and details set in the report and will require the approval of the project lighting designer.

SKR
Lighting Design

Ref: EX2

Specification 4.2

Abbey Gardens,
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Company Number: 8255099

Manufacturer / Supplier:
Luminaire Name:
Luminaire Catalogue No:
Colour / Finish:
IP Rating:
IK Rating:
Max Power Watt:
LED Luminaire lumen output:
Efficacy:
Voltage to driver:
Light source colour:
CRI (Colour rendering Index):
Lamp life (Hrs & L):
Warranty (See manufacturer):
Construction / Materials:
Cooling Management:
Weight:
Control method:
Beam angle / light distribution:
Description and Use:

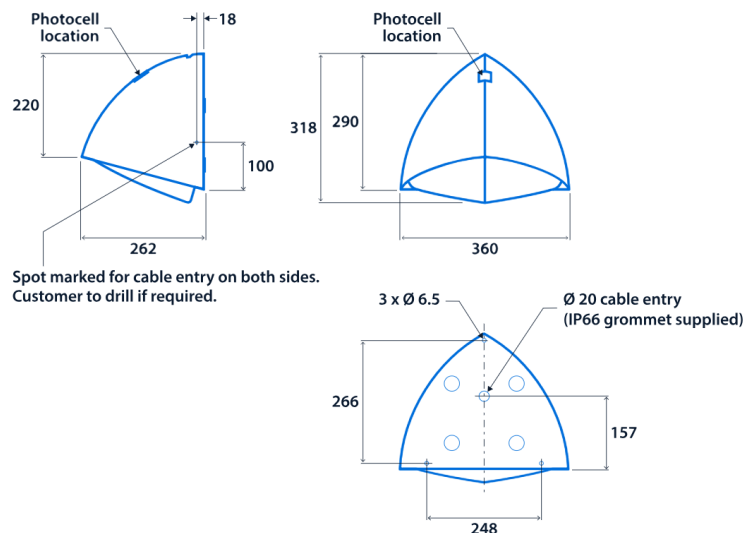
Thorlux
Realta
RL19116LPC-2700k-WF
Grey or graphite TBC
IP66
IK11
23W
2840lm
123lm/W
2700K
70+ CRI
100,000hrs K-L90/B10
5 Years
Die-cast aluminium
Passive
4Kg
Photocell switched on/off
Area
Wall mounted downlight. Thorlux
special request 2700k

.....

Accessories:

Contact:

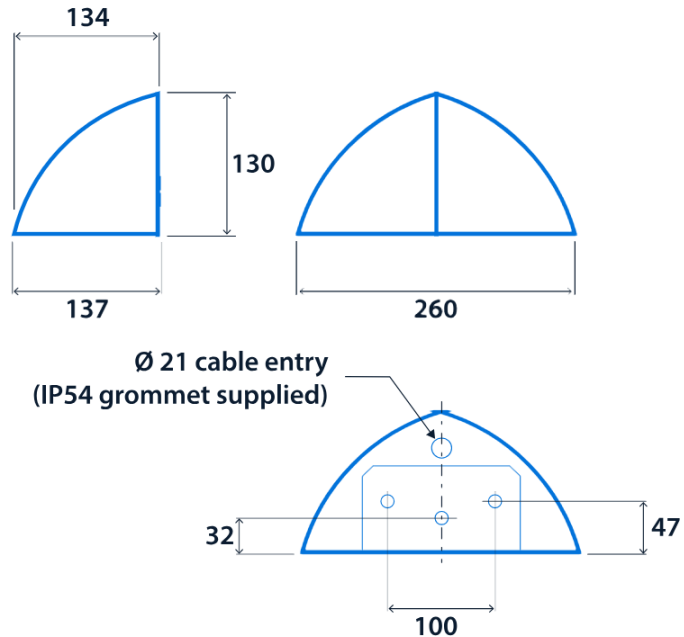
Wesley Farr
07881699135
Wesley.farr@thorlux.co.uk



SKR guidance note:

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Manufacturer / Supplier:	Thorlux
Luminaire Name:	Realta MICRO
Luminaire Catalogue No:	TRL 16607LFC827.WF
Colour / Finish:	Grey or graphite TBC
IP Rating:	IP66
IK Rating:	IK11
Max Power Watt:	8W
LED Luminaire lumen output:	550lm
Efficacy:	69lm/w
Voltage to driver:	
Light source colour:	2700K (Special)
CRI (Colour rendering Index):	
Lamp life (Hrs & L):	100,000hrs K-L90/B10
Warranty (See manufacturer):	5 Years
Construction / Materials:	
Cooling Management:	Passive
Weight:	
Control method:	On/off
Beam angle / light distribution:	Area
Description and Use:	Façade mounted downlight, with emergency battery pack. Fixed output, Emergency. Thorlux special request 2700k
Accessories:	Emergency battery for escape use, with standard key switch test. Electrical contractor to confirm.
Contact:	Wesley Farr 07881699135 Wesley.farr@thorlux.co.uk

Ref: EX3

Specification 4.3

Abbey Gardens,
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SKR guidance note:

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Ref: EX4

Specification 4.4

Abbey Gardens,
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Manufacturer / Supplier:
Luminaire Name:
Luminaire Catalogue No:
Colour / Finish:
IP Rating:
IK Rating:
Max Power Watt:
LED Luminaire lumen output:
Efficacy:
Voltage to driver:
Light source colour:
CRI (Colour rendering Index):
Lamp life (Hrs & L):
Warranty (See manufacturer):
Construction / Materials:
Cooling Management:
Weight:
Control method:
Beam angle / light distribution:
Description and Use:

Thorlux
Realta MICRO
TRL 16607LFC827.WF
Grey or graphite TBC
IP66
IK11
8W
550lm
69lm/w

2700K (Special)

100,000hrs K-L90/B10
5 Years

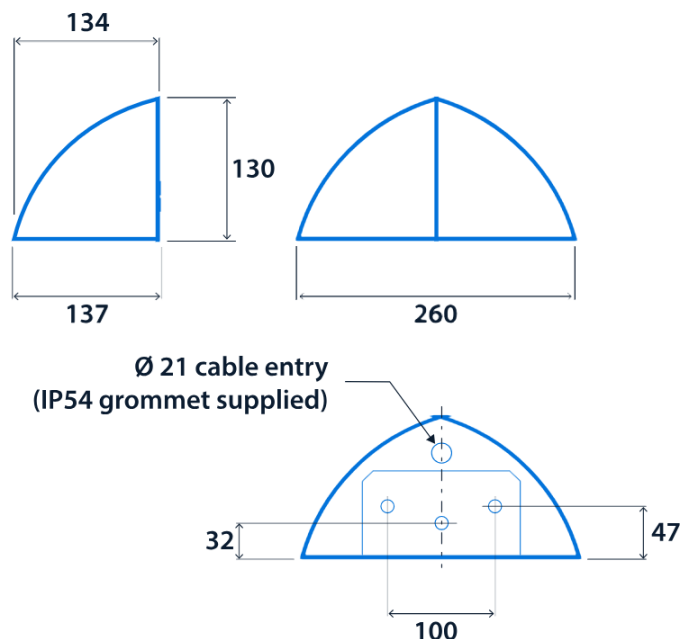
Passive

On/off
Area
Car park ramp wall mounted
downlight. Thorlux special request
2700k

Accessories:

Contact:

Wesley Farr
07881699135
Wesley.farr@thorlux.co.uk

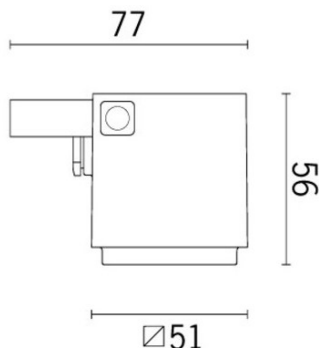
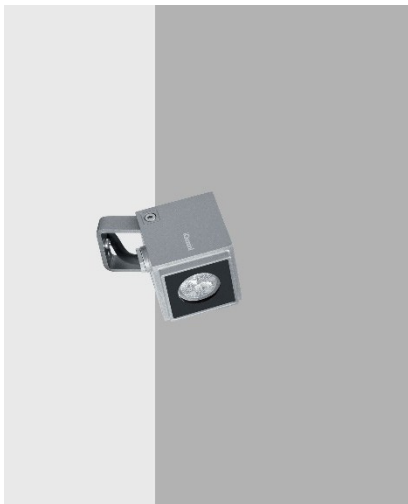


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SKR
Lighting Design



Manufacturer / Supplier	iGuzzini
Luminaire Name:	iPro
Luminaire Catalogue No:	BK01.2700K.BD
Colour / Finish:	TBC
IP Rating:	IP66
IK Rating:	IK07
Max Power Watt:	3.2W
LED Luminaire lumen output:	200lm
Efficacy:	62lm/W
Voltage to driver:	
Light source colour:	2700K
CRI (Colour rendering Index):	CRI80
Lamp life (Hrs & L):	100,000h L80
Warranty (See manufacturer):	5 Years
Construction / Materials:	Aluminium
Cooling Management:	Passive
Weight:	0.262Kg
Control method:	DALI Dimmed or Casambi
Beam angle / light distribution:	86°
Description and Use:	Bridge structure mounted downlight
Accessories:	Remote IP65 Dali-dim driver.
Contact:	Ben Dewey 07850369713 Ben.dewey@iguzzini.com

Ref: EX5

Specification 4.5

Abbey Gardens,
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Specification outline guidance for exterior lighting:

- a) Use High-frequency / non-flicker control gear for LED where possible.
- b) <2700k warm white range LED colour temperature to ensure wildlife sensitivity compliance.
- c) Integration with PIR sensors to be used where possible with suggested 1min cut off times.
- d) Luminaires used in this design and report are for the purposes of design and calculation. They are a guideline of design and performance, and any alternative suggested subsequently must be approved by the developer, project architect and lighting designer.
- e) Flexibility for future luminaire change should be allowed within the constraints of this design and report, as the future availability of luminaires and lamps from lighting manufacturers can change or even become obsolete within the time frame of a planning permission.
- f) The products specified are chosen with a view to use with the project dimming control system. The electrical consultant, contractor and or controls integrator need to verify compatibility of dimming to avoid any flicker, flashing, strobing or audible buzzing.

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Summary 5.0

Abbey Gardens,
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Exterior Lighting Survey
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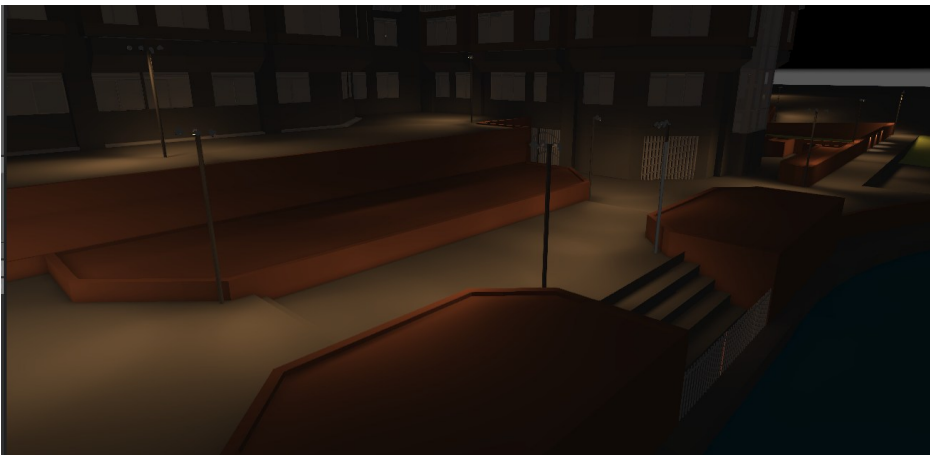
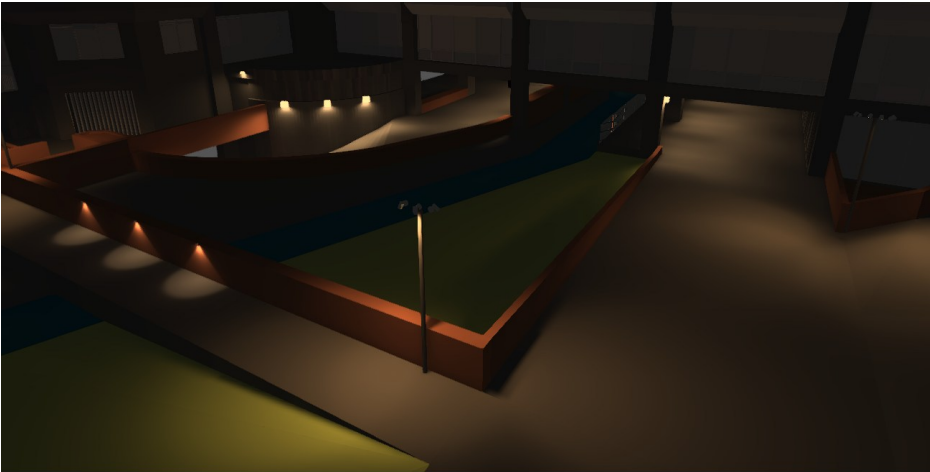
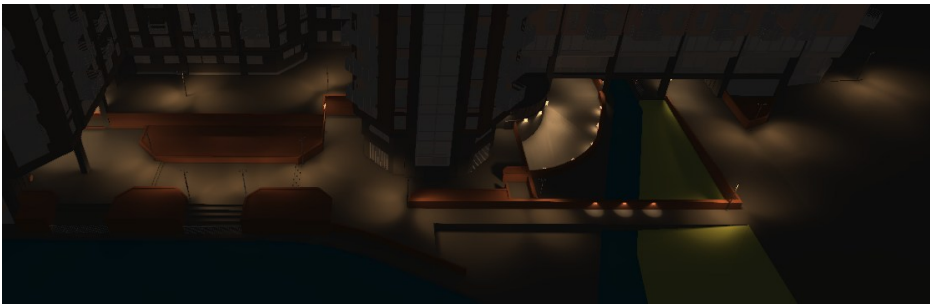
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Summary of Lighting Design proposal



Summary of the lighting design proposals

This proposed repurposed building in the centre of Reading is changing its use from commercial office to residential.

The new and upgraded lighting scheme will utilise precise and efficient lighting equipment, that is specified and planned in a way as to satisfy the new use of exterior spaces and in particular, improve the ecological and environmental impact on the nearby River Kennett and its tributary.

This is achieved by being simple, energy efficient, sustainable, maintainable and cost effective.

The specifications selected will allow for onward owner ease of maintenance and therefore give the best possible chance to keep the scheme working well into the future.

All general lighting is down facing with no upward light spill. Placement and positioning of this new scheme ensures a much improved 'dark-zone' for the river and its wildlife.

Control and switching will be via control system, light sensors and PIR sensors on 1min timers with owner temporary override if required for maintenance and security purposes. The specified lighting can also be dimmable to create more opportunity for energy efficiency and even lower light levels if desired.

All light used is of a very warm white <2700k nature which is fully compliant for a low-district sky setting and for nighttime wildlife such as bats and ground mammals, while complying to basic necessary recommended road and pathway lighting requirements.

The scheme has been created in coordination with the client's architect, planning consultant and ecologist.

Summary 5.1

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Thank you

End

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