

0164 - STEPHENSON HOUSE

Architectural Lighting to All External Areas

Planning Information for Condition 27 06/09/2021 Revision A

Introduction





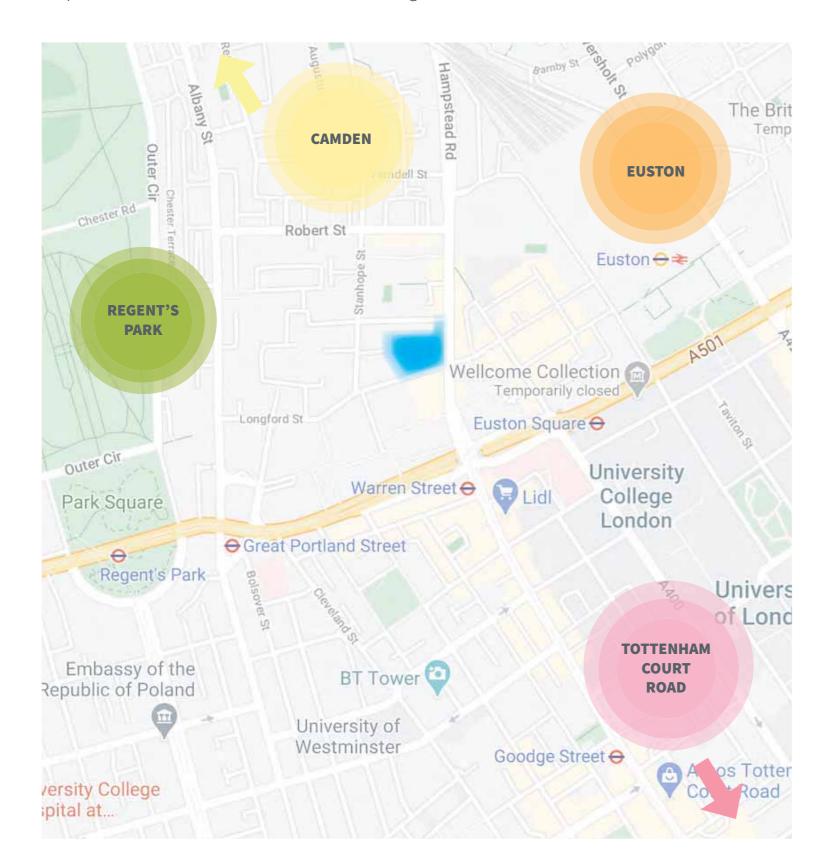


Stephenson House is one of the first proposals to come forward in a changing area in Camden with a close proximity to Euston HS2 station and the new Tottenham Court Road Crossrail station, offering the potential to express ambitions for increased quality of space.

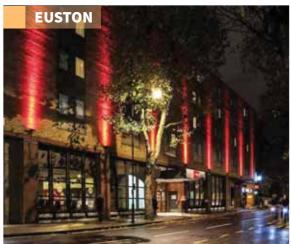
Hampstead Road will become a more important street and form part of the improved quality townscape for the next 20 years. Drummond Street is part of the east west pedestrian connection of Euston and Regents Park. The Stephenson House site will create a strong new identity to the area and promote a 'recognisable corner' (the Lantern) to act as a visual signifier along Hampstead Road to encourage pedestrian movement northwards, from the West End along Tottenham Court Road.

Studio 29 are assigned as the lighting designer for this project to create a lighting scheme that reinforces the quality of the building and creates a pleasant and safe atmosphere for the surrounding area at night. The objective of this document is to satisfy the planning condition from Camden Council and provide a lighting statement showing detailed lighting including lux levels and proposed projections of the external areas.

Stephenson House Site Context and Surrounding Areas











Stephenson House is situated close to the emerging Euston HS2 station and the new Tottenham Court Road Crossrail station. The site is surrounded by lively Camden and Euston as well as the quieter yet creative and family-friendly Regent's Park. The lighting scheme to Stephenson House aims to create a pleasant environment along Hampstead Road to encourage pedestrian movement northwards, from the West End along Tottenham Court Road.

Camden Council Planning - Condition 27 External Lighting Information

The aim of the this document is to satisfy the following lighting condition from Camden Council:

Camden Council Planning Condition No. 27

Prior to occupation of the development, a lighting statement showing detailed lighting including lux and proposed projections of the external areas is required, especially for the terraces, shall be submitted to and approved in writing by the Council. Approved details shall be implemented prior to occupation of the development and thereafter be permanently retained.

The following areas form part of the exterior architectural lighting design for Stephenson House:

- Terraces levels 1 to 7 including the pocket garden balconies
- Exterior Entrances:
 - Main office entrance
 - SME entrance
 - Residential entrances
- Exterior facade to Hampstead Road and Drummond Street

Condition 3E for the external lighting was discharged on 22nd March 2021 and some of the information within this doucument was included within the discharge of 3E to give an overall picture of all external architectural lighting.

The following documents were submitted and approved as part of condition 3E:

- DETAILED LUMINAIRE SCHEDULE EXTERIOR LIGHTING dated 29/11/2019 Rev C2 Issued 17/08/2020;
- Drawings 0164-101, 0164-102 Rev B
- Drawings 0164-201, 0164-202, 0164-203 Rev D
- Drawings 0164-220, 0164-221, 0164-222, 0164-223, 0164-224 Rev D
- 0164 Stephenson House, Exterior Lighting Planning Information dated 18/03/2021 Rev B

The folloiwng items are included in this document to discharge Condition No. 27

- Lighting calculations to terraces levels 1, 2, 3, 4, 6 and 7 including light levels to the floor and vertical claculation planes at the perimeter of the terraces
- Lighting calculations for the exterior entrances including:
 - The main office entrance
 - The SME entrance
 - The residential entrances
- Lighting calculations to the pocket garden balconies
- Lighting calculations demonstrating the lighting effect from Hampstead Road and Drummond Street facade (these calculations have previously been submitted and approved as part of plannning condition 3E).

The following drawing have also been included:

- 0164-220-225 Rev C2 Exterior Terrace Drawings
- 0164-201-203 Rev C2 Exterior Entrance Drawings
- 0164-101 and 102 Rev B Exterior facade drawings (these drawings have previously been submitted and approved as part of plannning condition 3E)

The following schedules have been included:

0164-SC2 Detailed Luminaire Schedule - Exterior Lighting Dated 30.07.21

Terraces - Proposed Lighting Scheme

Terraces

The lighting to the terraces has been designed to create a soft and inviting ambience for people to enjoy spending time outdoors. The lighting has been designed to create pockets of light and interest where people can sit and relax by providing human scale lighting as opposed to a uniform light level across the whole terrace.

The lighting to the terraces consists of three main elements;

- Lighting to the larger plants and trees
- Under bench lighting
- Wall lights which have a dual function of both architectural and emergency lights

Lighting to larger planting and trees will take the form of spike mounted spotlights and will be located at the plant base to illuminate their trunk and foilage. Each spotlight has a carefully selected beam and light output appropriate for the shape and size of the plant. The spotlights are all adjustable and will be focused towards the plants to minimise spill light. The spotlights are also DALI dimmable allowing the light level to be carefully commissioned to create an enjoyable ambience. The lighting to the planting has been designed to include for only the larger plants to be lit, this was chosen to create pockets of interest and focal points within the terrace and also helps minimise energy consumption.

Linear lighting has been designed to go under the benches to provide a soft layer of light to the floor below. The light fitting is hidden from direct views and is discreetly integrated into the bench. This provides an aesthetically pleasing human scale lighting element and aids with wayfinding. Drivers and power supplies for the benches will remain local within the bench voids, this makes maintainence simpler as all drivers/power supples will be easy to locate.

High level wall lights RAL coloured to match the architectural features are to be mounted on the brick piers. The wall lights have a dual purpose allowing them to provide emergency lighting to aid safe escape and act as low level architectural lighting in the evening. These wall lights have been carefully selected to include a range of different beam angles which light the various shaped terraces effectively using minimal fittings.

All terrace lights will be switched off during the day (unless an emergency situation) and will come on at dusk. They will also switch off at a set time of 11pm inline with the pre-curfew hours from the ILP Reduction of Obtrusive Lighting. All luminaires form part of the architectural control system with an astromical time clock allowing them to automatically switch on and off.

All light fittings are high efficiency LED's with long life spans and minimal energy consumption.

As well as providing an enjoyable atmosphere for people on the terraces the lighting will also provide a visually pleasing view for both occupants within Stephenson House and surrounding neighbours allowing people to experience greenery within an urban environment.

The lighting has been designed in accordance with CIBSE Lighting Guide 06: The Exterior Environment, Table 2.2 Excerpt from BS EN 12464:2-2104 with the recommended minimum level of 5 lux.

Concept Images Demonstrating the Design Intent



Spotlights to larger shrubs and trees



Wall mounted lights providing general illumination



Linear lighting under the bench seat

Terrace Lighting - Luminaire Key Design Features



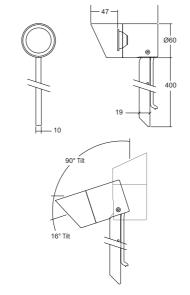


Key Features:

- A cowl directs the light where it is wanted and minimises spill light
- Miniature fittings for minimal visual intrusion
- Various beam angles and outputs selected to suit the size of the planting
- Spike mounted to allow the fitting to be optimally placed to light the shrubs and trees
- Warm white 3000K LED to create a pleasant and aesthetically pleasing atmosphere
- DALI dimmable allowing all fittings to be dimmed to a suitable level

Medium Size Spotlights Reference: SP7

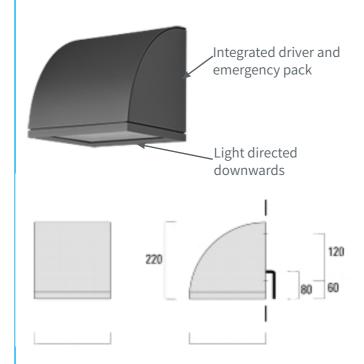




Key Features:

- A cowl directs the light where it is wanted and minimises spill light
- Higher output suitable for larger trees
- Beam angles selected to suit the size of the planting
- Spike mounted to allow the fitting to be optimally placed to light the shrubs and trees
- Warm white 3000K LED to create a pleasant and aesthetically pleasing atmosphere
- DALI dimmable allowing all fittings to be dimmed to a suitable level

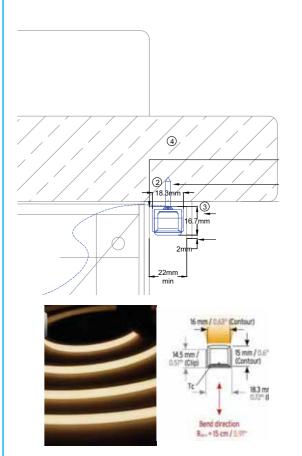
Wall Lights Reference: EM4, EM5, EM7, EM12, EM13, EM14



Key Features:

- Dual function architectural and emergency lights
- Carefully selected beam angles depending on the shape and size of the terrace, to minimise light spill and fitting quantities. Beam angles include: asymmetric forward throw, asymmetric side throw beam and rectangular forward throw beam.
- RAL coloured Pearl Beige to match surrounding architectural elements
- DALI dimmable, it is expected that the wall lights will be dimmed down for architectural use in an evening to provide a low level of ambient light to the terrace with surrounding trees and bench lighting being the features.
- Warm white 3000K light to create a pleasant atmosphere
- Integral emergency pack and LED indicator

Linear LED Benches Reference: L3



Key Features:

- Opal harmogenous line of light
- Creates a glow on the floor below to help define bench locations
- Provides a feature in the space and enjoyable places to sit
- Hidden from direct views only the lit effect is seen
- Drivers to be located locally within the planter voids for ease of maintenance
- DALI dimmable and forms part of the lighting control system
- Warm white to create a pleasant and intimate atmosphere

Exterior Entrances - Proposed Lighting Scheme

Exterior Entrances

The exterior entrances define the different gateways into Stephenson House, the three entrances include:

- The main office entrance on the corner of Drummond Street and Hampstead Road
- The residential entrance on Hampstead Road
- The SME entrance on the corner of Hampstead Road and William Road

The lighting to the entrances has been designed to highlight the entrance area and to illuminate architectural features, highlighting materiality whilst providing safe and functional entrance points into Stephenson House. The lighting to all entrances consist of downlights in a range of beams and outputs to suit the application and are all DALI dimmable and form part of the architectural control system. All lighting is directed down towards the the ground or columns therefore minimal spill light and light pollution. Some of the downlights also double up as emergency fittings to aid safe escape from the building. The downlights are all warm white 3000K which create a warm and pleasant atmosphere and compliment the facade. Long life span low energy LED's have been selected.

Concept Images Demonstrating the Design Intent



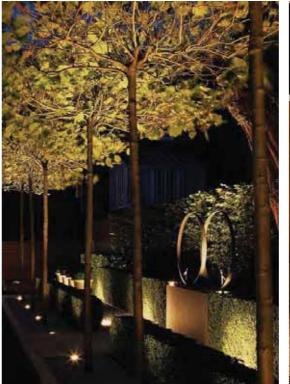




Recessed downlights for general ambient light

Pocket Gardens Balconies

The pocket garden balcony lighting consists of buried uplights recessed in the ground to illuminate the flanking walls. The uplights are adjustable allowing the fittings to be tilted towards the walls to ensure the wall is lit uniformly. The soffit and walls of the pocket garden balconies ensure the light is contained to the balcony area only minimising unwanted spill light. Spike mounted spotlights matching the main terrace areas will be located within the planters to light the foilage and trunks creating a pleasing focal point of greenery. All lighting to the pocket gardens balcony is DALI dimmable and forms part of the architectural control system.



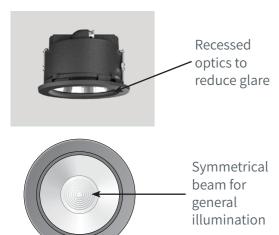
Spotlights to planting



Uplights to walls

Entrance and Pocket Gardens Balconies Lighting - Luminaire Key Design Features

Recessed Downlights Reference: DL7, DL11, DL13

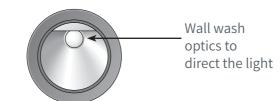


Key Features

- Multiple sized downlights providing general illumination and lighting to the colummns.
- RAL coloured to blend with the surrounding soffit
- Emergency battery packs can be used in conjunction with them to save the requirement for a seperate light, minimising clutter on the soffit
- Warm white 3000K light to provide a safe and welcoming space
- Different beam angles selected for each application;
 - Narrow beam to columns to minimise spill light and highlight architectural fetaures
 - Wide beam optic between columns to provide a suitable light level to the floor and create a welcoming atmosphere
- Multiple light outputs selected depending on its application. The lighting to the exterior canopy is designed to minimise the contrast in light levels between the interior and exterior to ensure the tranisiton between the different spaces is smooth as recommended within the lighting guidelines.
- The fittings are all DALI dimmable and form part of the architectural control system.
- Energy efficient LED's with long lifespans

Recessed Wallwash Lights Reference: DL9, DL14

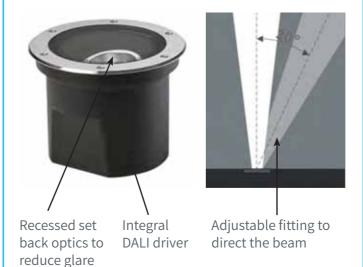




Key Features

- The fittings form part of the same family as the downlights to ensure they visually all harmonise
- RAL coloured to blend with the surrounding soffit
- Warm white 3000K light to provide a safe and welcoming space
- Wall wash optics chosen to direct the light towards the entrance walls to light the vertical planes and highlight the architectural finishes.
- DALI dimmable and forms part of the architectural control system.
- Energy efficient LED's with long lifespans

Inground Uplights Reference: U2

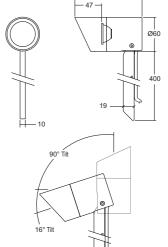


Key Features

- · Recessed into the floor to have minimal visiblity.
- Fittings are located at the perimeter of the balconies directed towards the two surrounding walls to minimise glare for anyone on the balconies.
- The lighting effect creates a portal of light
- DALI dimmable and part of the architectural control system.
- Medium beam optics to create an even wash of light on the walls.
- Minimal light spill as all light is contained within the pocket garden balcony walls, soffit and floor.
- Energy efficient LED's with long lifespans

Medium Sized Spotlights Reference: SP7





Key Features:

- A cowl directs the light where it is wanted and minimises spill light
- Higher output suitable for large trees
- Beam angles selected to suit the size of the planting
- Spike mounted to allow the fitting to be optimally placed to light the shrubs and trees
- Warm white to create a pleasant and aesthetically pleasing atmosphere
- DALI dimmable allowing all fittings to be dimmed to a suitable level

INFORMATION PREVIOUSLY SUBMITTED TO CAMDEN COUNCIL AND DISCHARGED AS PART OF CONDITION 3E

STEPHENSON HOUSE - EXTERIOR LIGHTING PLANNING INFORMATION

Proposed Lighting Scheme

Exterior Facades

The proposed exterior lighting to the facade of Stephenson House has been carefully designed and tested on full scale mock-ups to ensure suitable light fittings have been selected which have minimal visible impact on the facade during the day and at night the light emitted is only directed where required.

The use of luminaires with narrow beam optics and glare shields direct all light onto the main elevation, reducing any spill light towards neighbouring properties. The use of cowls also minimise direct views into the luminaires from neighbouring properties therefore reducing glare. Drummond Street and Hampstead Road facades have adjustable mounting brackets to enable each of the luminaires to be directed towards the main facades ensuring there's no impact to neighbouring properties and reducing sky glow.

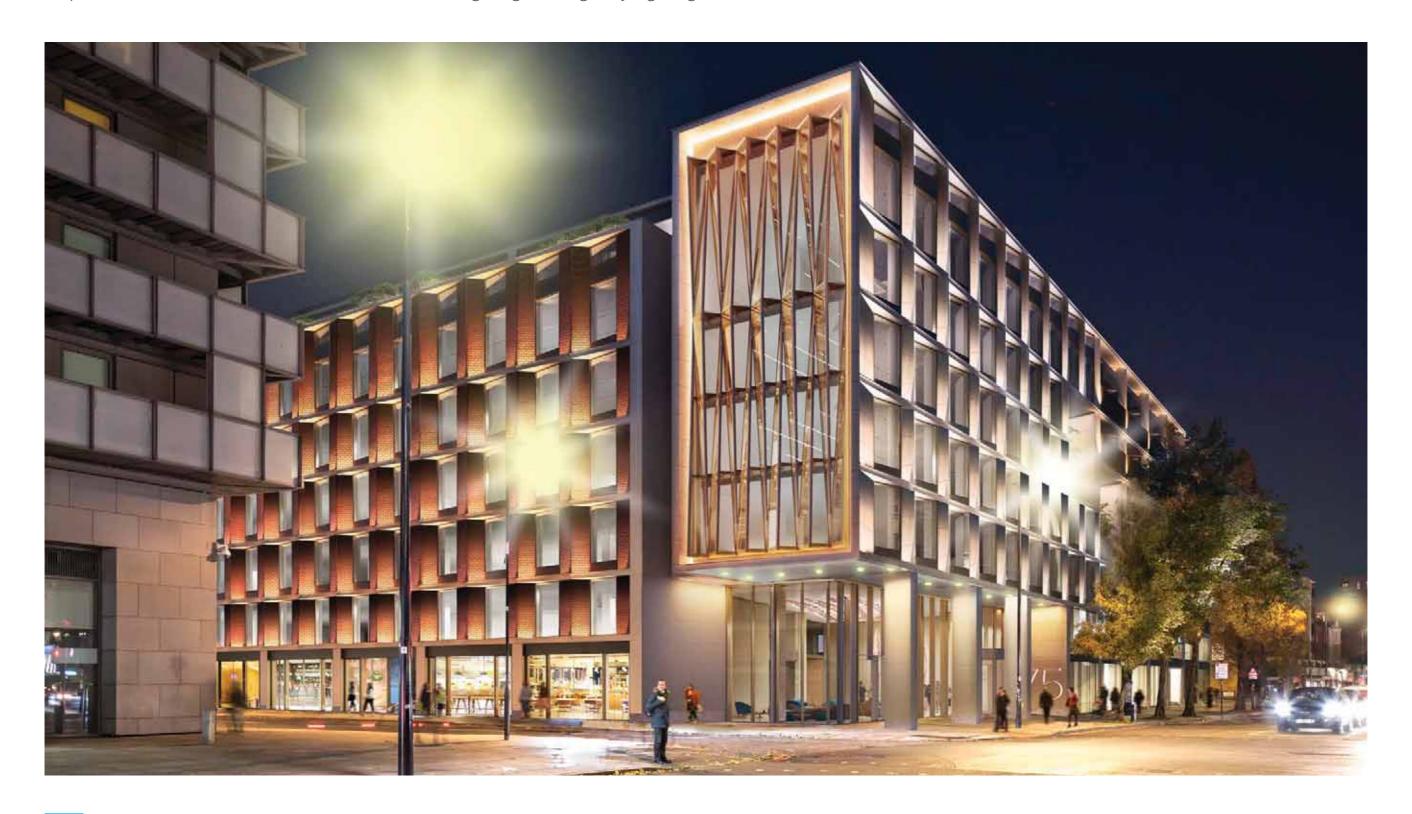
The lighting has been designed to be compliant with ILP Reduction of Obtrusive Light and also comply with Camden Planning Guidance, in line with Amenity (pages 10-25) and Design (page 45, 4.60) 2021. All luminaires are DALI dimmable ensuring all light levels are dimmed to be in line with the guidance. When commissioned the light fittings will be focused to ensure a balance between lighting the architecture and minimising unwanted spill light. The use of dimming means that little light travels past the height of the intended surface to be illuminated and therefore reduces sky glow. All light fixtures will be aimed towards the facade and the use of narrow beam optics will reduce the affect on the surrounding wildlife and should not have an impact on biodiversity. By lighting the facade it reduces the harsh background contrast created from the surrounding street lighting.

The proposed facade luminaires are all LED, low energy consumption, long life span and reduces maintenance. All luminaires comply with the BREEAM ENE 03 External Lighting criteria and have efficacies higher than 60 lumens/circuit watt. The lighting forms part of the Lutron architectural control system with an astronomical time clock and will be automatically controlled to switch on at sunset and off at a set time, proposed 11.30pm. This means lighting will only be on during night time sociable hours to enhance the feel and atmosphere of Hampstead Road and Drummond Street ensuring no wasted energy consumption.

The cabling for the linear fittings comes via internal conduit and is not be visible from the ground below or neighbouring properties. All light fittings are aesthetically pleasing with small dimensions to reduce visibility during the day. Each fitting is RAL coloured to match the surface it's fixed to blending with the architecture. The lighting design is intended to increase the visibility of a landmark building, improve the attractiveness of the area, providing a pleasant atmosphere and help make the area feel welcoming. The lighting will also help enhance the feel of security as people generally feel safer in a lit area as opposed to a dark one. The illumination to the facade compliments the architecture and will become a focal point on Hampstead Road.



Stephenson House Drummond Street Feature Facade Lighting with Highway Lighting



Facade lighting providing a safer and pleasant atmosphere enhancing Drummond Street and Hampstead Road

The facade lighting adds to the sense of security and safety to the street making it feel a more habitable and safer space to occupy and walk. The inclusion of façade lighting reduces the background contrast and helps to reduce the overall impression of glare emitted from the highway lighting columns.

INFORMATION PREVIOUSLY SUBMITTED TO CAMDEN COUNCIL AND DISCHARGED AS PART OF CONDITION 3E

STEPHENSON HOUSE - EXTERIOR LIGHTING PLANNING INFORMATION

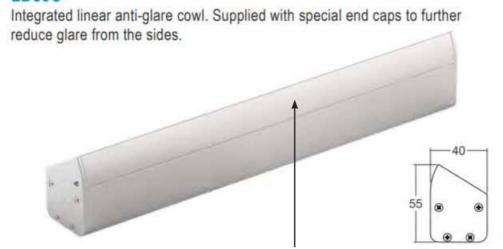
Drummond Street Facade Lighting - Key Design Features LIN4, LIN5 and LIN6

LIN4, LIN5 and LIN6 are located on the ledges of Stephenson House to illuminate the vertical piers. Light fittings have been carefully selected and tested to ensure the most suitable light fitting for the application has been selected. Mock-ups have been undertaken with the light fitting at the facade manufacturers in Venice to review the lighting effect and the impact on the surroundings.

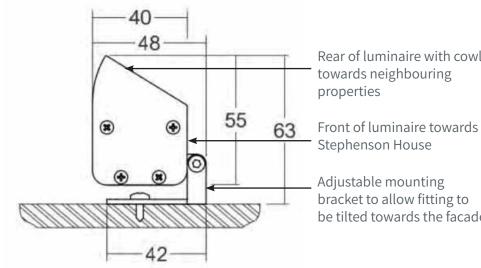
Key Aspects in Selecting The Light Fittings:

- Minimal fittings which sit discreetly on the ledge, RAL coloured to blend with the surrounding architecture to ensure visibility during the day is minimal.
- Lensed fittings to control the light being emitted by the luminaire, all fittings are have oval beam optics meaning backward light spill is minimal.
- A cowl to the rear of the luminaire to stop light going backwards towards the residential properties.
- Low energy consumption all fittings are LED with lifespans of 50,000 hours and are efficient at 77 lumens/circuit watt surpassing the BREEAM ENE 03 requirement of 60 lumens/circuit watt.
- Adjustable mounting bracket to direct the light towards the facade.
- Warm colour temperature 2700K to compliment the brick facade creating a warm and pleasant atmosphere.
- Integral louvre to reduce glare from office occupants looking out.
- DALI dimmable fittings to allow full control over the light levels on the facade, these will be carefully commissioned on site to find the balance between lighting the facade and causing minimal disturbance to the neighbours.

LD38C



Cowl to minimise backwards light emission towards neighbouring properties



Rear of luminaire with cowl

be tilted towards the facade



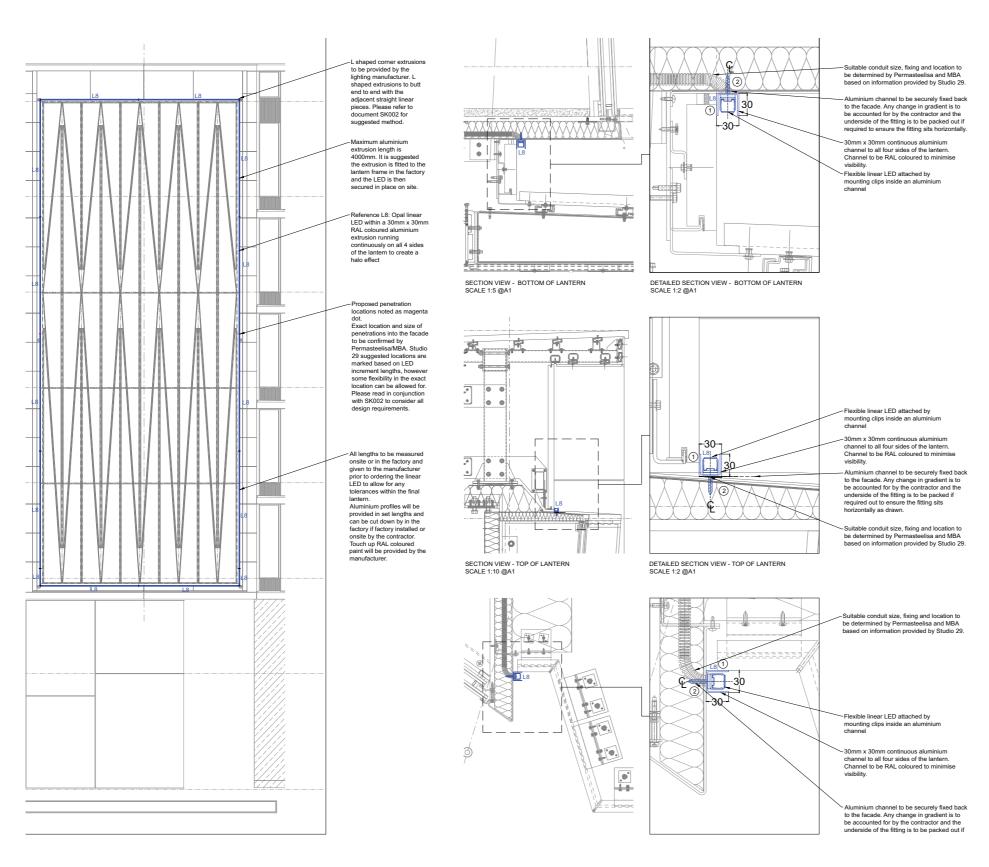
For LIN4 and LIN6 solely an oval beam is proposed, for LIN5 a combination of an oval and extra oval beam is proposed to a produce a suitable illumination across the pier due to the shape of the ledge



Individually

Louvre located integral to lensed LED's the fitting to reduce glare for occupants looking from the offices outwards

Drummond Street Facade Lighting - L8 Around The Lantern

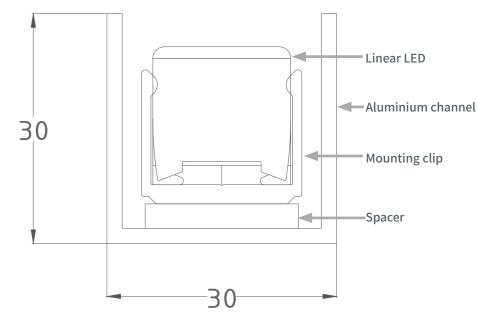




The lantern lighting consists of an opal flexible linear LED in 3000K warm white located within a RAL coloured extrusion and secured to the side of the lantern frame. The design intent is to minimise direct views of the fitting so just the lighting effect is visible.

The lighting will create a soft glow around the lantern providing a pleasing focal point for people travelling up Hampstead Road.

Section Through Aluminium Channel and Light Fitting



Key Design Features:

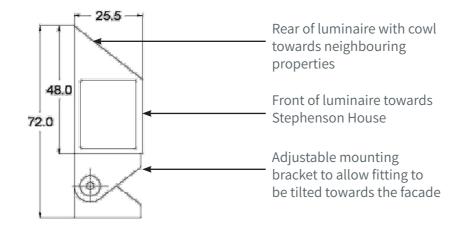
- Opal homogeneous line of light
- Fitting located within RAL coloured channel to match the lantern frame, to allow the fitting to appear invisible during the day
- A small profile means minimal impact on the architecture
- Long life span of 50,000 hours
- LED fitting with minimal energy consumption 10W/m
- DALI dimmable to allow full control, so fitting can be dimmed to a suitable light level to compliment the architecture and also minimise any disturbance to neighbouring properties

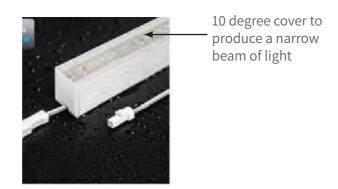
Hampstead Road Facade Lighting - Key Design Features for LIN1, LIN2, LIN3 and AA1

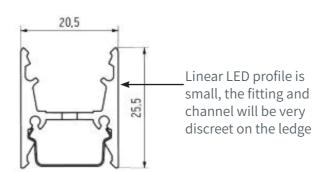
LIN1, LIN2 and LIN3 are located on the ledges of Stephenson House to light the vertical piers have been carefully selected and tested to ensure the most suitable light fitting for the application has been selected. Mockups have been undertaken with the light fitting at the facade manufacturers in Venice to review the lighting effect and the impact on the surroundings.

Key Aspects in Selecting The Light Fittings LIN1, LIN2 and LIN3:

- Minimal fittings which sit discreetly on the ledge, RAL coloured to match the facade to ensure visibility during the day in minimal.
- The LED has a 10 degree narrow beam diffuser to ensure light is not emitted in unnecessary directions.
- A custom metal extrusion with a cowl at the rear means there is minimal light spill backwards towards neighbouring properties.
- Low energy consumption all fittings are LED with lifespans of 50,000 hours and are efficient at 85 lumens/circuit watt surpassing the BREEAM ENE 03 requirement of 60 lumens/circuit watt.
- Adjustable mounting bracket to direct the light towards the facade.
- Warm colour temperature 3000K to compliment the stone facade creating a warm and pleasant atmosphere.
- DALI dimmable fittings to allow full control over the light levels on the facade, these will be carefully commissioned on site to find the balance between lighting the facade and causing minimal disturbance to the neighbours.



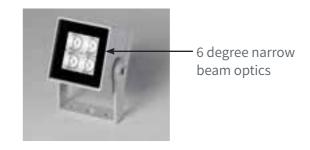


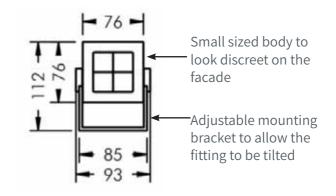


AA1 is located at the residential end of Hampstead Road on the corner of each of the balconies to create a blade of light. The narrow beam 6 degree beam means that the light is directed only where needed with minimal light spill adjacent or forwards and backwards. This light fitting has been mocked-up to review output and offset from the facade to ensure the best effect is visible.

Key Aspects in Selecting The Light Fitting AA1:

- Small discreet fitting, minimal impact on the architecture.
- RAL coloured to match the balustrade.
- Customised bracket by the facade manufacturer to allow seamless integration within the balustrade.
- Narrow beam to control the distribution of the light emitted.
- DALI dimmable allowing control over the light output of all luminaires.
- Energy efficient with an efficacy of 75 lumens/circuit watt surpassing the BREEAM ENE 03 requirements of 60 lumens/circuit watt.
- 3000K colour temperature to match the linear LED to the office end and compliment the stone work.





Relevant Lighting Guidelines

ILP Reduction of Obtrusive Lighting - Applies to All Areas

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

Stephenson House classfies as an urban location therefore would be Zone E4

Light technical parameter	Application	Environmental zone				
	conditions	EO	E1	E2	E3	E4
Illuminance in the vertical plane (E _v)	Pre-curfew	n/a	2 lx	5 lx	10 lx	25 lx
	Post-curfew	n/a	<0.1 lx*	1 lx	2 lx	5 lx

^{*} If the installation is for public (road) lighting then this may be up to 1 lx.

Table 6 (CIE 150 table 5): Maximum values of upward light ratio (ULR) of luminaires.						
Light technical parameter	Environmental zones					
• Andrews	EO	E1	E2	E3	E4	
Upward light ratio (ULR)/%	0	0	2.5	5	15	

Terraces and Pocket Garden Balconies

The entrances and pocket garden balconies have been designed to create points of interest and pockets of humanscale illumination to create enjoyable and intimate spaces which both provide a visually attractive space for occupiers and onlookers from both the offices and surrounding residential and office buildings.

The light levels across the terrace will vary but will achieve a maintianed minimum illuminance of 5 lux as recommeded by the CIBSE LG06 with higher light levels by seating areas and larger planting.

Ref. no.	Type of area, task or activity	E _m (lux)	U ₀	R _{GL} (-)	R _a (-)	Remarks
5.1.1	Walkways exclusively for pedestrians	5	0.25	50	20	
5.1.2	Traffic areas for slowly moving vehicles (max. 10 km/h), e.g. bicycles, trucks and excavators	10	0.40	50	20	
5.1.3	Regular vehicle traffic (max. 40 km/h)	20	0.40	45	20	At shipyards and in docks, R _{GL} may be 50
5.1.4	Pedestrian passage, vehicle turning, loading and unloading points	50	0.40	50	20	

Exterior Entrances

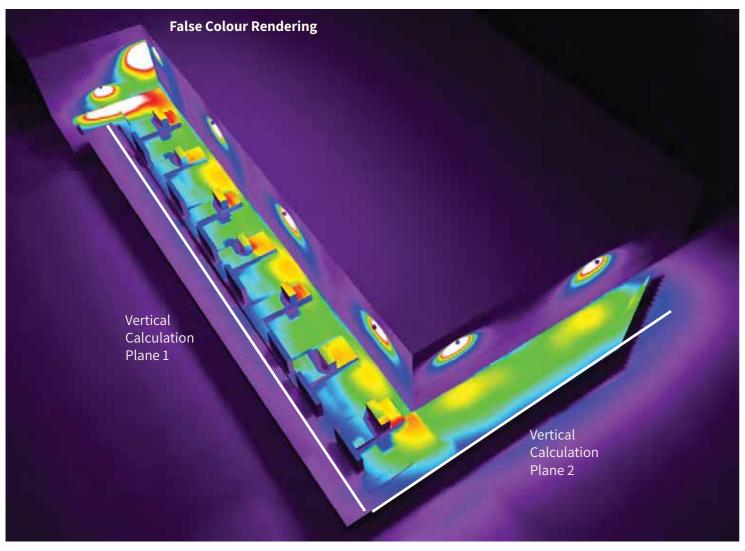
The entrance points to Stephenson House should have a raised level of illuminance compared to the surrounding public realm to define the entrances and create an inviting and safe access point to the building.

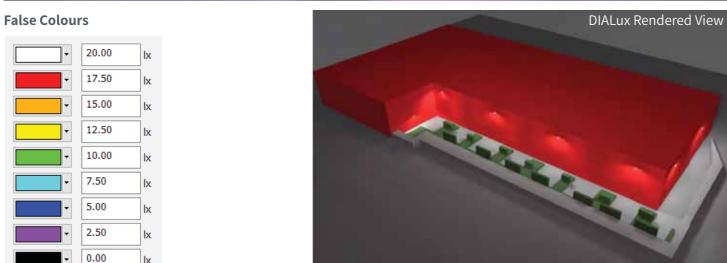
During the daylime daylight will supplement the artifical lighting to create a bright and inviting entrance and during the night the artifical light will be balanced to reflect the internal reception lighting to ensure there is not a vast contrast in light levels between spaces as it would make it harder for the eyes to adjust.

During daylight hours it is expected that the light levels will be 300 lux+ and during the evening between 100-150 lux to balance with the reception for the main office and around 100 lux for the SME and residential entrances. All light levels will be carefully comissioned on site to ensure a suitably lit environment.

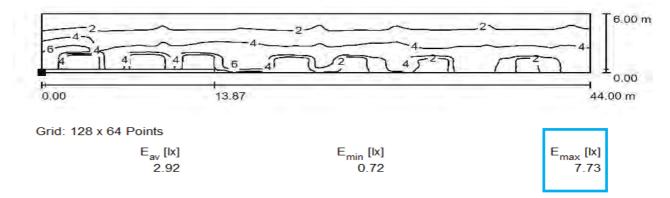
Vertical surfaces will also be illuminated to create balance and interest, highlighting materiality and provide a three dimensionsal design.

DIALux Calculation Terraces Level 1

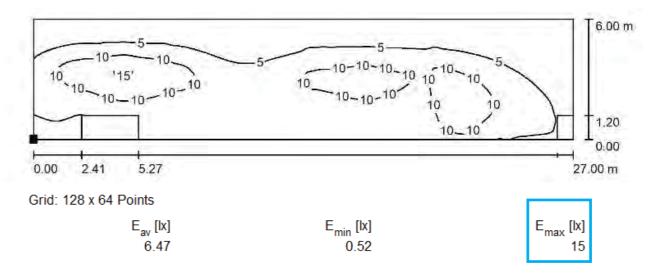




Vertical Calculation Plane 1



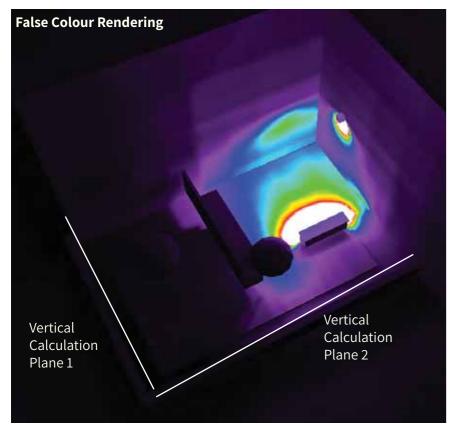
Vertical Calculation Plane 2

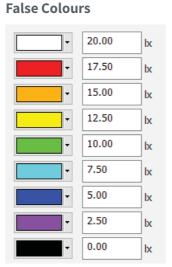


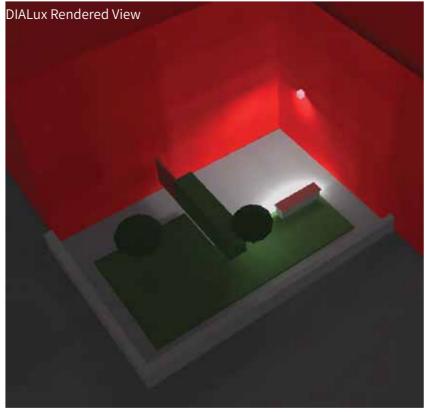
Level 1 Calculation Information:

- All light fittings in the calculation are on at 100% light output, the fittings will be dimmed if required during the onsite commissioning stage to balance the light levels.
- The light levels on the terrace surpass 5 lux on the ground which is a recommended minimum by CIBSE LG06. On the false colour rendering image it can be seen that the average light level is around 10 lux (noted by the green colour).
- From the vertical calculation planes set up at the perimeter of the terrace, the maximum light level is 15 lux in the vertical plane which is below the ILP Obtrusive Light Guidelines maximum recommended value of 25 lux pre-curfew.

DIALux Calculation Terraces Level 2



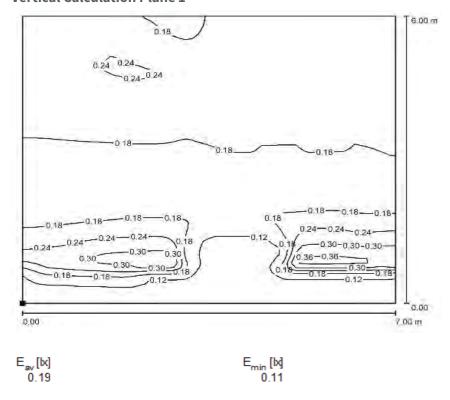




Level 2 Calculation Information:

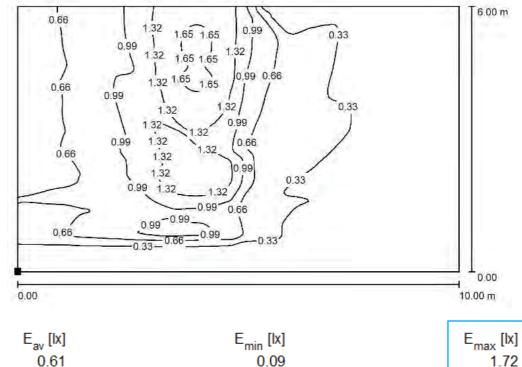
- All light fittings in the calculation are on at 100% light output, the fittings will be dimmed if required during the onsite commissioning stage to balance the light levels.
- The light levels on the terrace surpass 5 lux on the ground which is a recommended minimum by the CIBSE LG06. On the false colour rendering image it can be seen that the average light level is around 7.5 lux (noted by the blue colour).
- From the vertical calculation planes set up at the perimeter of the terrace, the maximum light level is 2 lux in the vertical plane which is below the ILP Obtrusive Light Guidelines maximum recommended value of 25 lux pre-curfew.

Vertical Calculation Plane 1

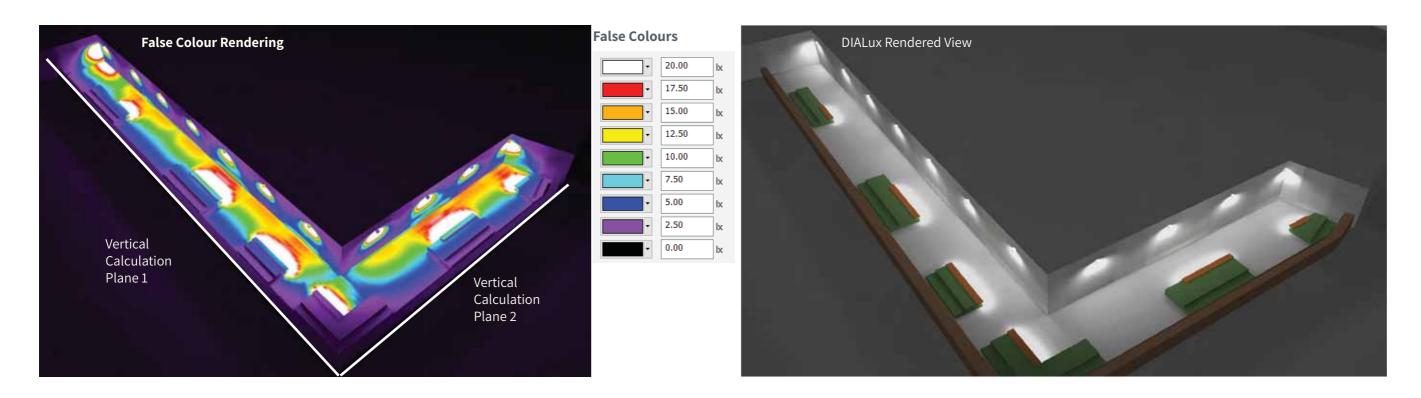




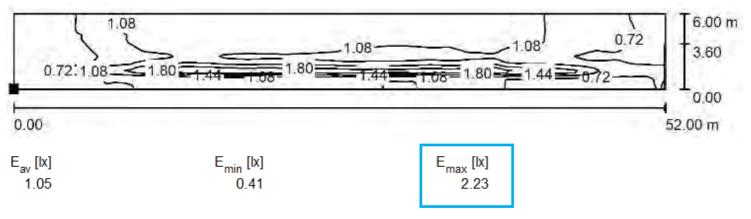
Vertical Calculation Plane 2



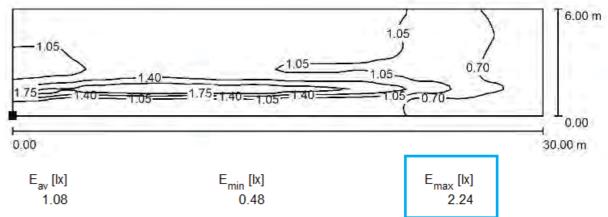
DIALux Calculation Terraces Levels 3



Vertical Calculation Plane 1



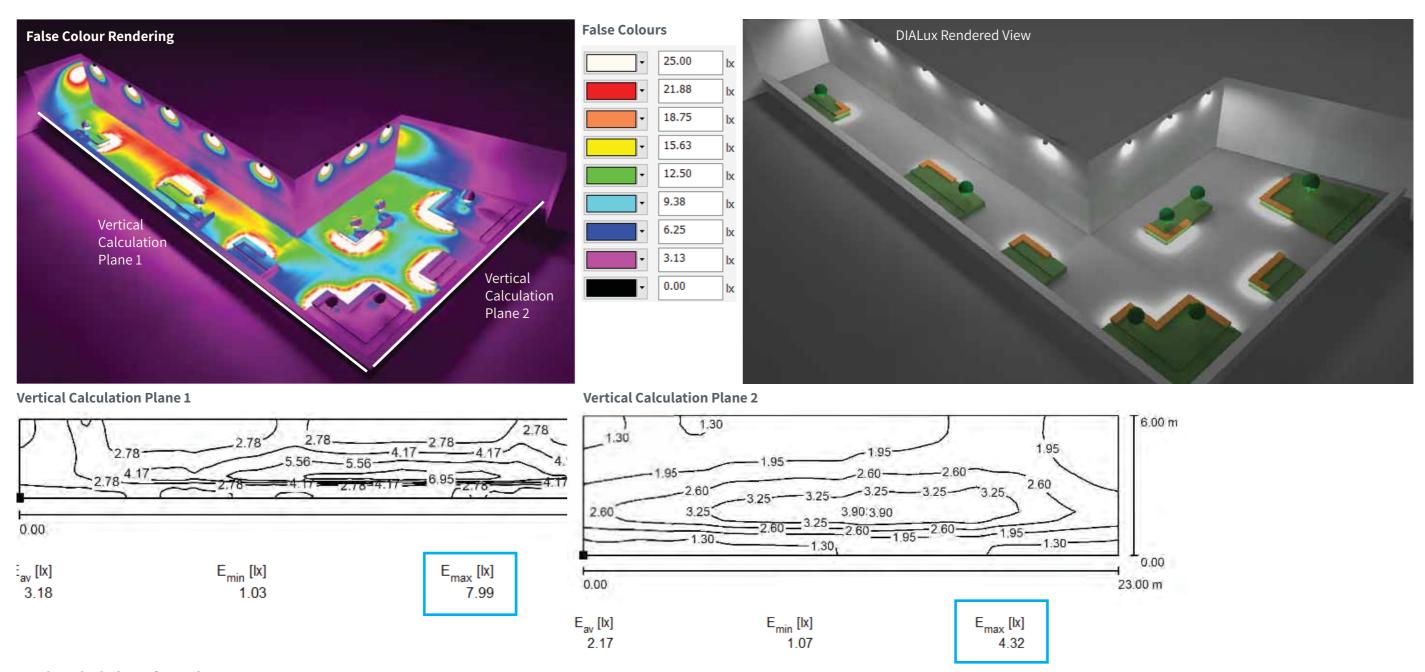
Vertical Calculation Plane 2



Level 3 Calculation Information:

- The wall lights are dimmed to 70% output, the bench light and spotlights are on at 100% output in the calculation and all will be commissioned on site to provide a suitable and pleasant level of illumination.
- The light levels on the terrace surpass 5 lux on the ground which is a recommended minimum by the CIBSE LG06. On the false colour rendering image it can be seen that the average light level is around 7.5-12.5 lux (noted by the green and yellow colour).
- From the vertical calculation planes set up at the perimeter of the terrace, the maximum light level is <3 lux in the vertical plane which is below the ILP Obtrusive Light Guidelines maximum recommended value of 25 lux pre-curfew.

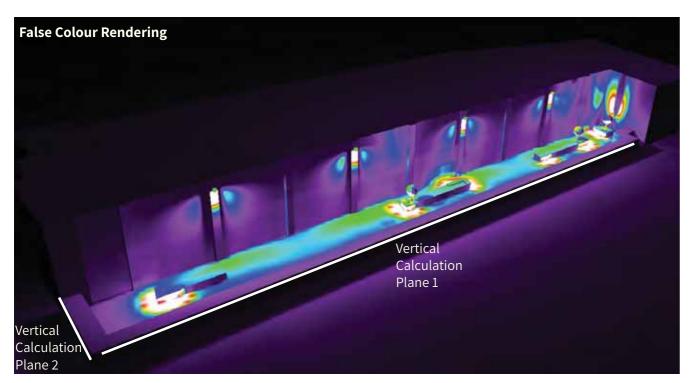
DIALux Calculation Terraces Levels 4

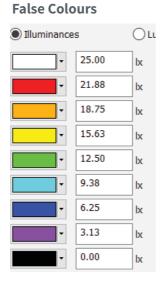


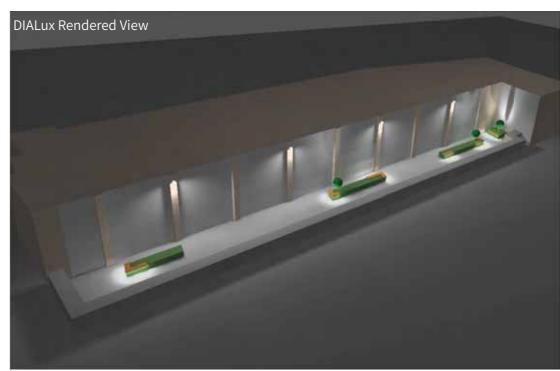
Level 4 Calculation Information:

- The wall lights are dimmed to 50% output, the bench light and spotlights are on at 100% output in the calculation and all will be commissioned on site to provide a suitable and pleasant level of illumination.
- The light levels on the terrace surpass 5 lux on the ground which is a recommended minimum by the CIBSE LG06. On the false colour rendering image it can be seen that the light level ranges between 9.38-21.88 lux.
- From the vertical calculation planes set up at the perimeter of the terrace, the maximum light level is 8 lux in the vertical plane which is below the ILP Obtrusive Light Guidelines maximum recommended value of 25 lux pre-curfew.

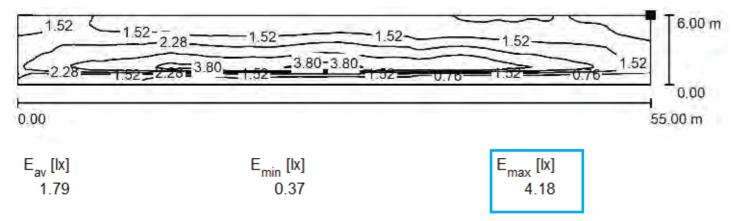
DIALux Calculation Terraces Level 6







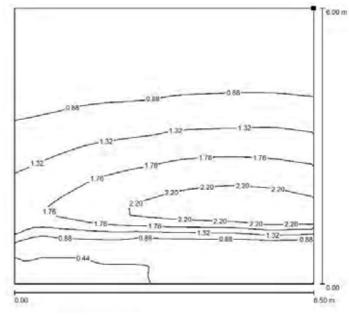
Vertical Calculation Plane 1



Level 6 Calculation Information:

- The wall lights are dimmed to 50% output, the bench light and spotlights are on at 100% output in the calculation and all will be commissioned on site to provide a suitable and pleasant level of illumination.
- The light levels on the terrace surpass 5 lux on the ground which is a recommended minimum by the CIBSE LG06. On the false colour rendering image it can be seen that the light level ranges between 9.38-12.5 lux.
- From the vertical calculation planes set up at the perimeter of the terrace, the maximum light level is <4.5 lux in the vertical plane which is below the ILP Obtrusive Light Guidelines maximum recommended value of 25 lux pre-curfew.

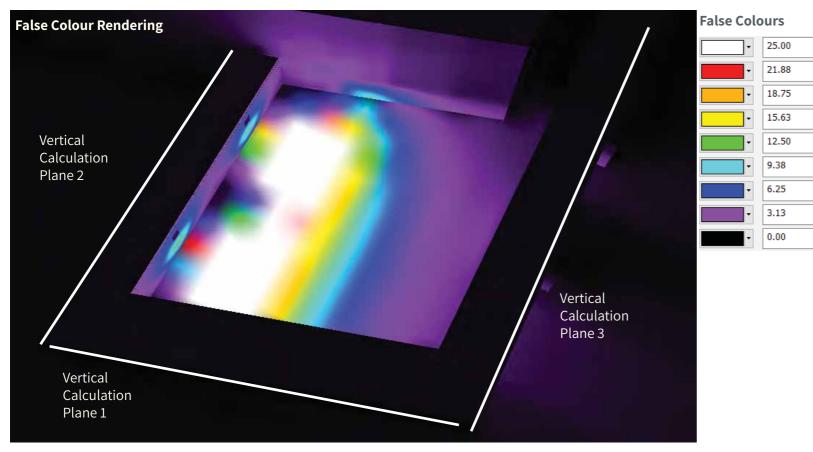
Vertical Calculation Plane 2

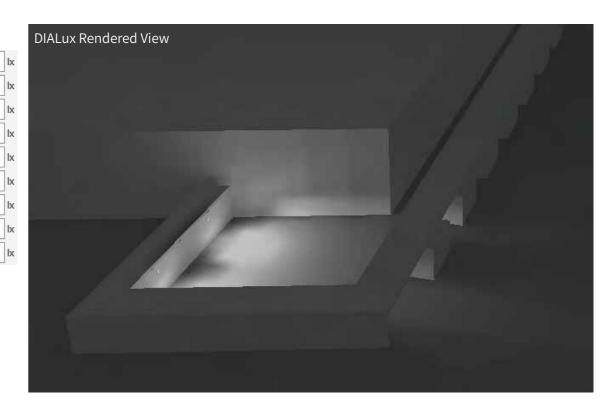




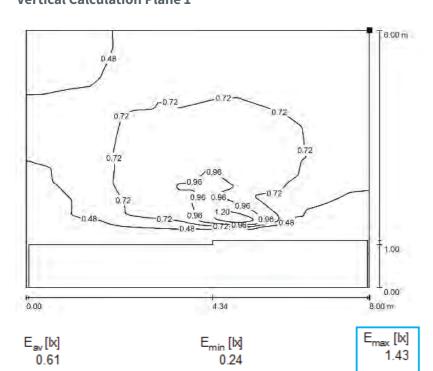
E_{max} [lx] 2.60

DIALux Calculation Terraces Level 7

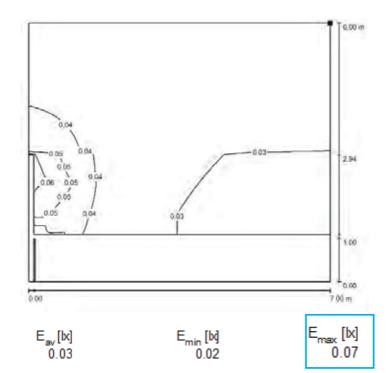




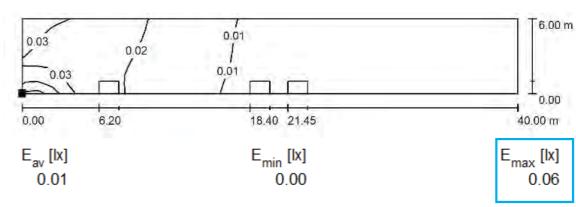
Vertical Calculation Plane 1



Vertical Calculation Plane 2



Vertical Calculation Plane 3



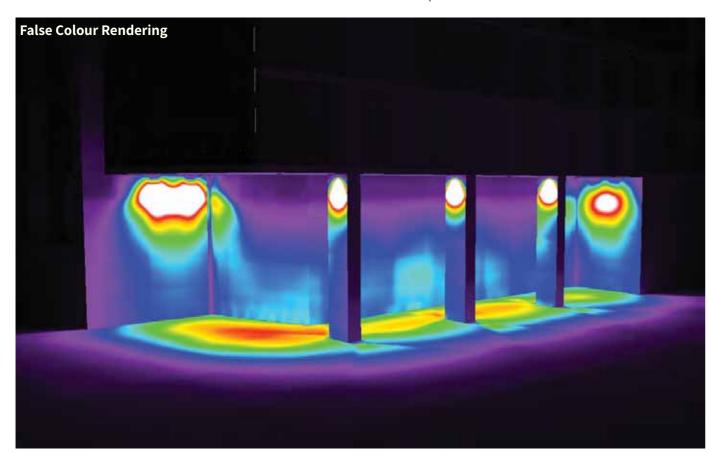
Level 7 Calculations Information:

- The architectural lighting to the level 7 terrace consists of 2 recessed wall lights built into the parapet walls. The remaining lighting is non maintianed emergency lighting and will only come on in an emergency situation.
- The lighting to the level 7 terrace is concerntrated to the front small terrace area.
- The wall lights are on at 100% light output and will be commissioned on site to create a pleasant atmosphere.
- From the vertical calculation planes set up at the perimeter of the terrace, the maximum light level is <2 lux in the vertical plane which is below the ILP Obtrusive Light Guidelines maximum recommended value of 25 lux pre-curfew.

20

Exterior Entrances

Main Entrance - Corner of Drummond Street and Hampstead Road



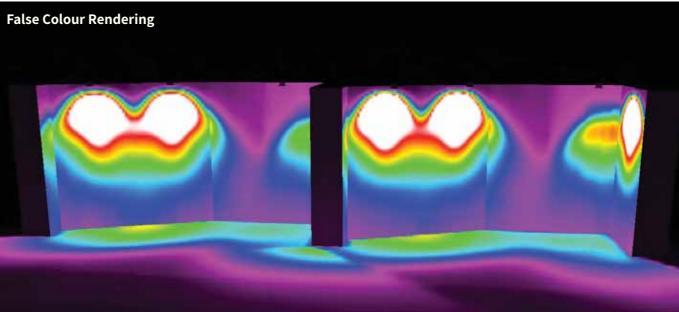
Main Office Entrance

The main entrance creates a bright and welcoming entrance illuminating vertical surfaces as well as the floor below. The light level under the canopy ranges from 125 to 175 lux from the canopy lighting alone. The reception lighting will also provide additional light to the entrance. Both the interior reception and exterior canopy lighting will be commissioned to provide a welcoming and safe light level.

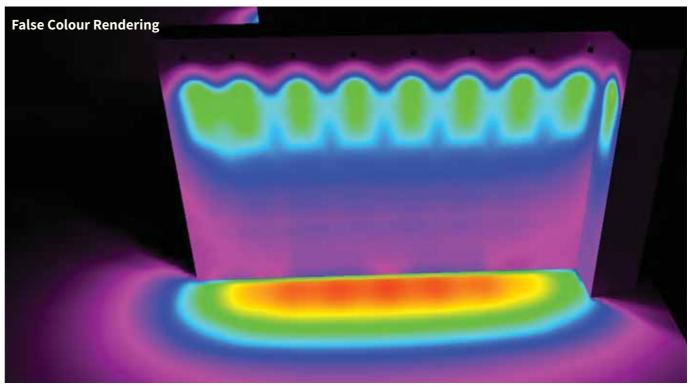
The lighting to the SME entrance is 150 lux when on at 100% output it is expected that these lights will be commissioned to balance with the surrounding environment.

The residential entrance ranges from 75 lux to 100 lux. Lighting to the residential entrances is directed at the surrounding surfaces to highlight their finishes and create a welcoming and residential feel. All lights in here are fully dimmable.

Residential Entrance - Drummond Street



SME Entrance - Corner of William Road and Drummond Street



False Colours

	200.00	lx
_	175.00	lx
_	150.00	lx
_	125.00	lx
_	100.00	lx
•	75.00	lx
•	50.00	lx
•	25.00	lx
•	0.00	lx

False Colours

200.00

175.00

150.00

125.00

100.00

75.00

50.00

25.00

STEPHENSON HOUSE - EXTERIOR LIGHTING PLANNING INFORMATION

Pocket Garden Balconies



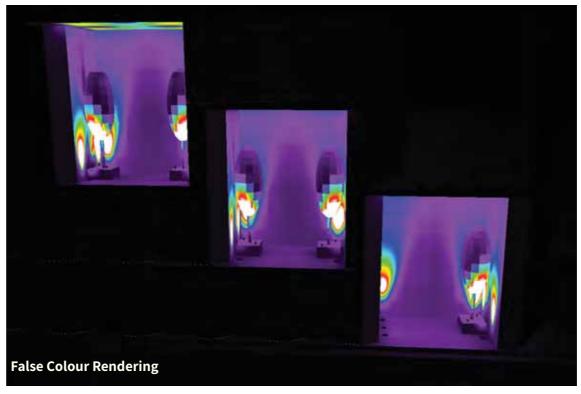
DIALux Rendered View of the Pocket Garden Balconies

The lighting to the pocket garden balconies has been designed to light the surfaces creating a portal of light. Inground uplighters in the floor will illuminate the two sides and provide light to the soffit which will reflect onto the floor below.

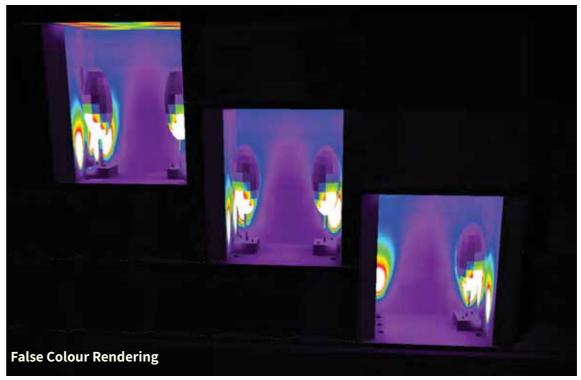
The uplights are adjustable to allow the fittings to be tilted to provide an even wash up the walls and minimise glare. The light fittings form part of the architectural control system and will be commissioned to provide a pleasant atmosphere.

The light levels on the balcony floor is 25 lux and is a uniform level of light, this surpasses the minimum CIBSE requirements of 5 lux.

The lighting forms part of the architectural control system and will be dimmed to provide a pleasant atmosphere. The lighting in the calculation was tested at both 100% and 75% light ouput and will be carefully commissioned on site to balance the light levels between the facade, interior pocket gardens and surrounding buildings.



75% Light Output



100% Light Output

22

30.00 m

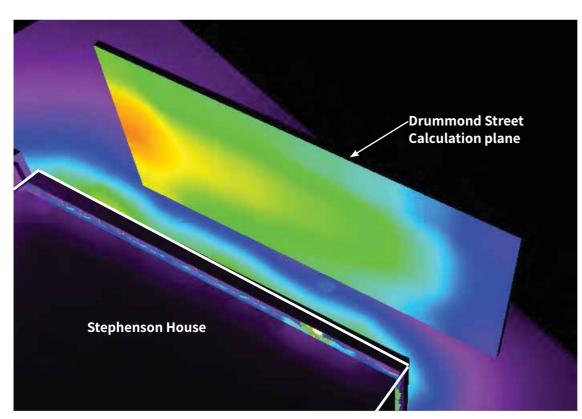
0.00

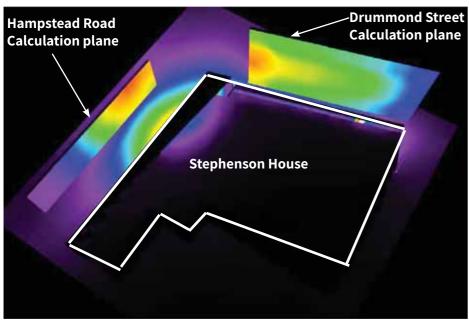
INFORMATION PREVIOUSLY SUBMITTED TO CAMDEN COUNCIL AND DISCHARGED AS PART OF CONDITION 3E

STEPHENSON HOUSE - EXTERIOR LIGHTING PLANNING INFORMATION

DIALUX Lighting Calculations Showing False Colour Rendering for the Neighbouring Properties - Drummond Street Pre Curfew

Drummond Street Calculation Plane





6.25 lux

5 lux

3.75 lux

2.5 lux

1.25 lux

0 lux

False Colours

10 lux

8.75 lux

7.5 lux

0.00 60.00 m Position of surface in external scene: Marked point: (5.011 m, -16.221 m, 30.000 m) Grid: 32 x 16 Points E_{max} [lx] E_{av} [lx] 4.31 7.29

The average illuminance on the neighbouring properties on Drummond Street is 4.31 lux with the maximum value of 7.29 lux at the end towards the lantern. These figures conform with those listed within the ILP Reduction of Obtrusive Light (details found on the previous page). These above plots represent if the lighting is dimmed to 50%. All lighting across the facade is fully dimmable and will be dimmed during the commissioning stage to balance the light levels on the facade and minimise light spill and light pollution. This ensures that lighting is only on at sociable times, minimising the impact on the neighbouring facades and also reduces the energy usage as it will only be on a for a set of number of hours in the day. This will help reduce the impact on the environment. All lighting is also LED so has a low power consumption and therefore the overall impact of lighting to the facade from an energy perspective will be low. The light fittings are adjustable and therefore this helps minimise sky glow as they can be tilted towards the facade.

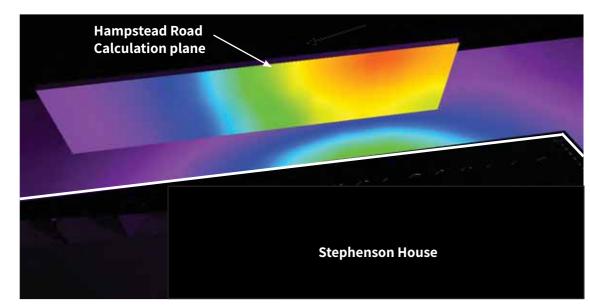
A calculation plane has been set up 15.2m away from the Stephenson House facade to represent the neighbouring properties.

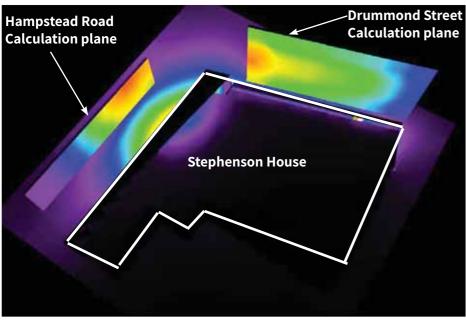
u0 0.440

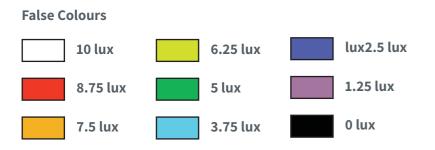
INFORMATION PREVIOUSLY SUBMITTED TO CAMDEN COUNCIL AND DISCHARGED AS PART OF CONDITION 3E

STEPHENSON HOUSE - EXTERIOR LIGHTING PLANNING INFORMATION

DIALUX Lighting Calculations Showing False Colour Rendering for the Neighbouring Properties - Hampstead Road Pre Curfew

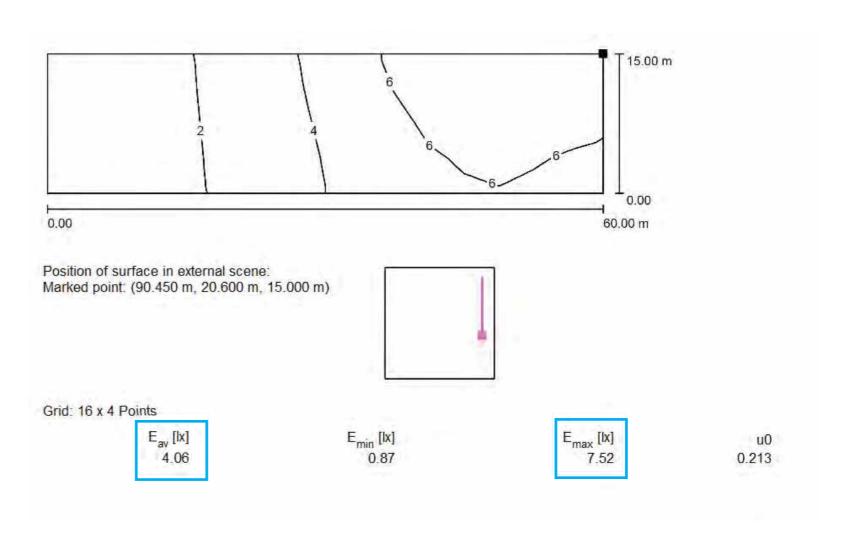






Hampstead Road Calculation Plane

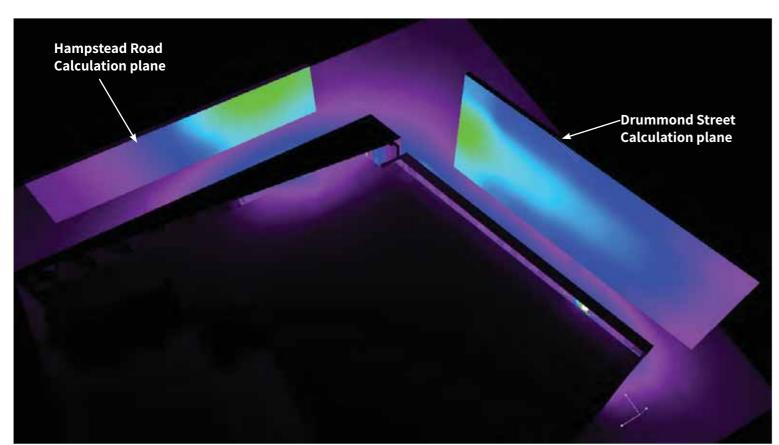
A calculation plane has been set up 23.6m away from the Stephenson House facade to represent the neighbouring properties.



The average illuminance on the neighbouring properties on Hampstead Road is 4.06 lux with the maximum value of 7.52 lux at the end near the offices. These figures conform with those listed within the ILP Reduction of Obtrusive Light (details found earlier in this document). These above plots represent if the lighting is dimmed to 50%. All lighting across the facade is fully dimmable and will be dimmed during the commissioning stage to balance the light levels on the facade and minimise light spill and light pollution.

DIALUX Lighting Calculations Showing False Colour Rendering for the Neighbouring Properties - Drummond Street and Hampstead Road Post Curfew

0.440



False Colours 10 lux 6.25 lux lux2.5 lux 8.75 lux 5 lux 1.25 lux

7.5 lux

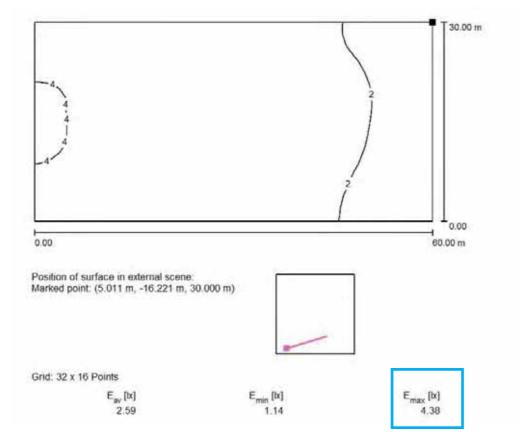
Post curfew it is suggested the lighting is dimmed down to 30% up until 11.30pm then it will be switched off until sunset the following day.

3.75 lux

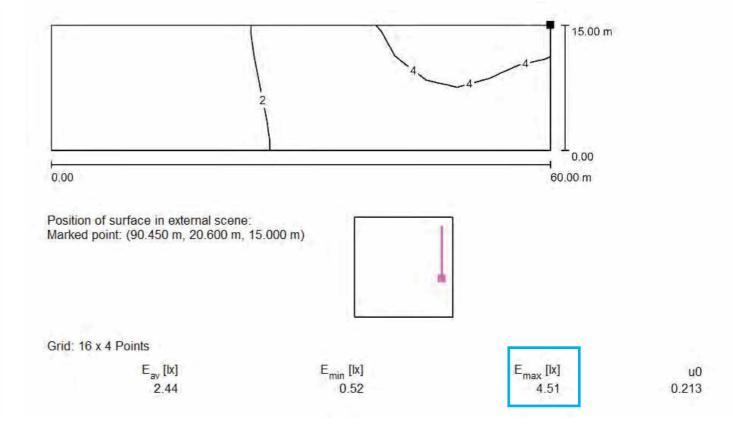
0 lux

This reduces the amount of light levels falling onto the neighbouring facades to a maximum of 4.38 lux on Drummond Street and 4.51 lux on Hampstead Road which is below the ILP guidelines of a maximum value of 5 lux.

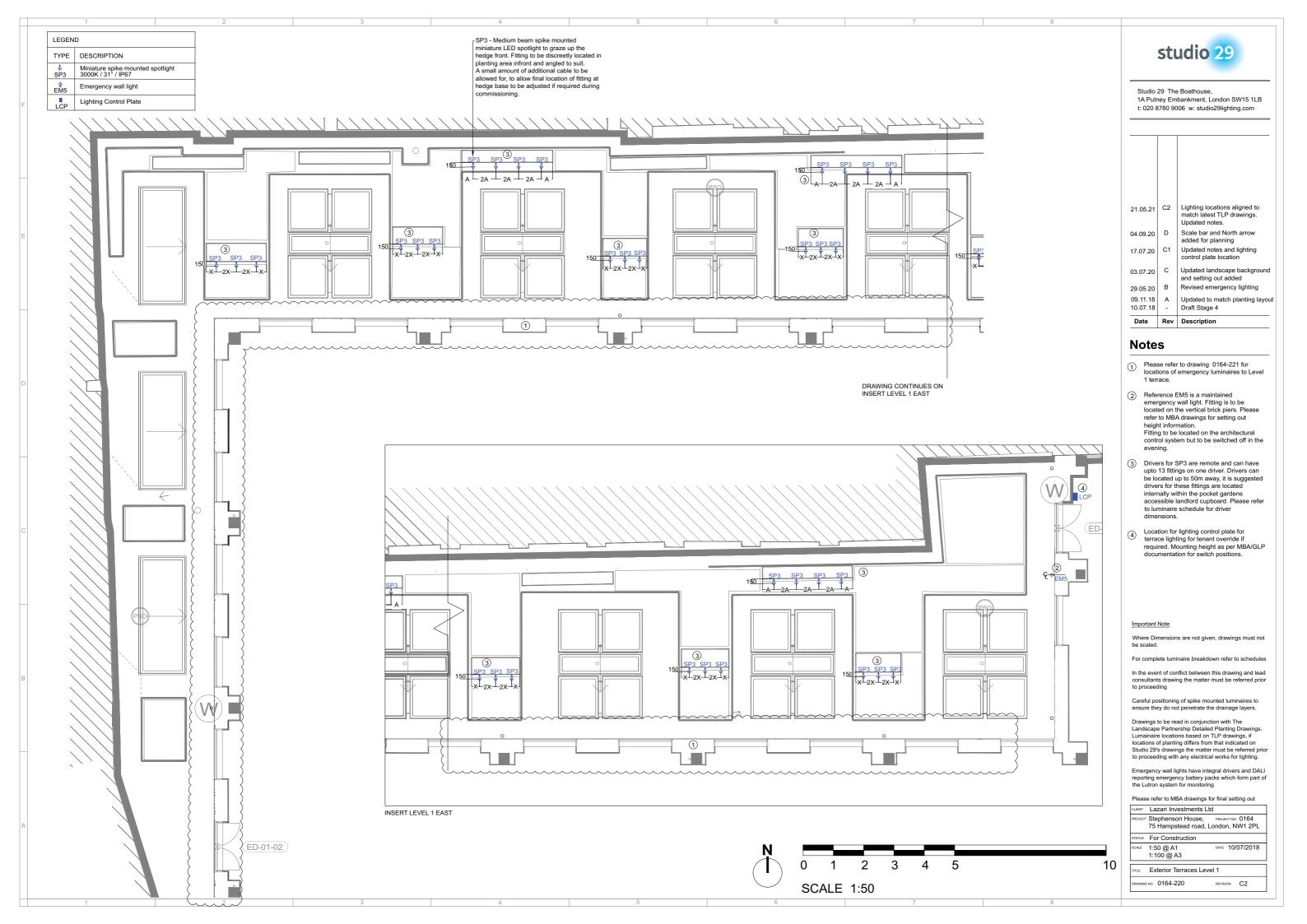
Drummond Street Calculation Plane

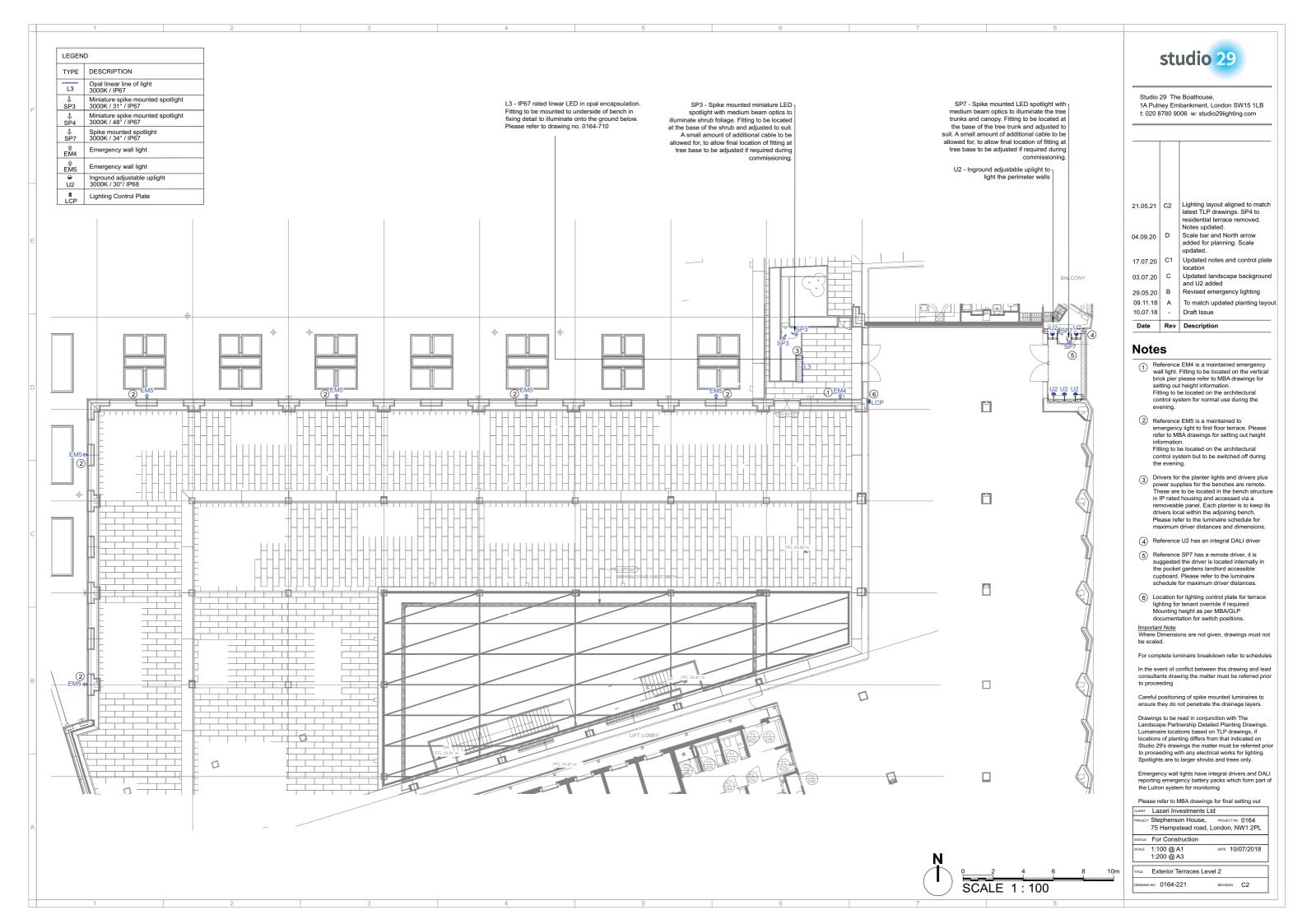


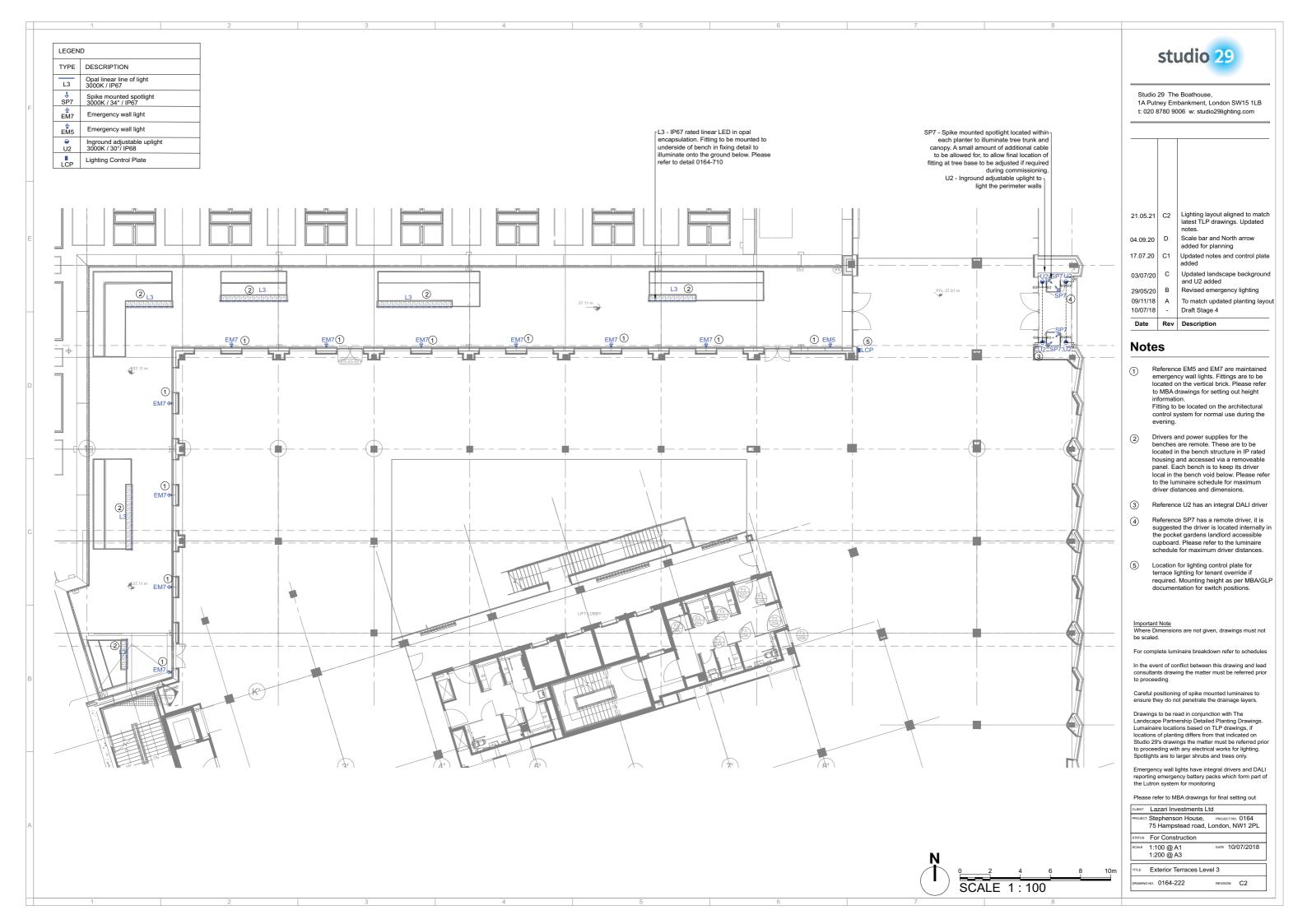
Hampstead Road Calculation Plane

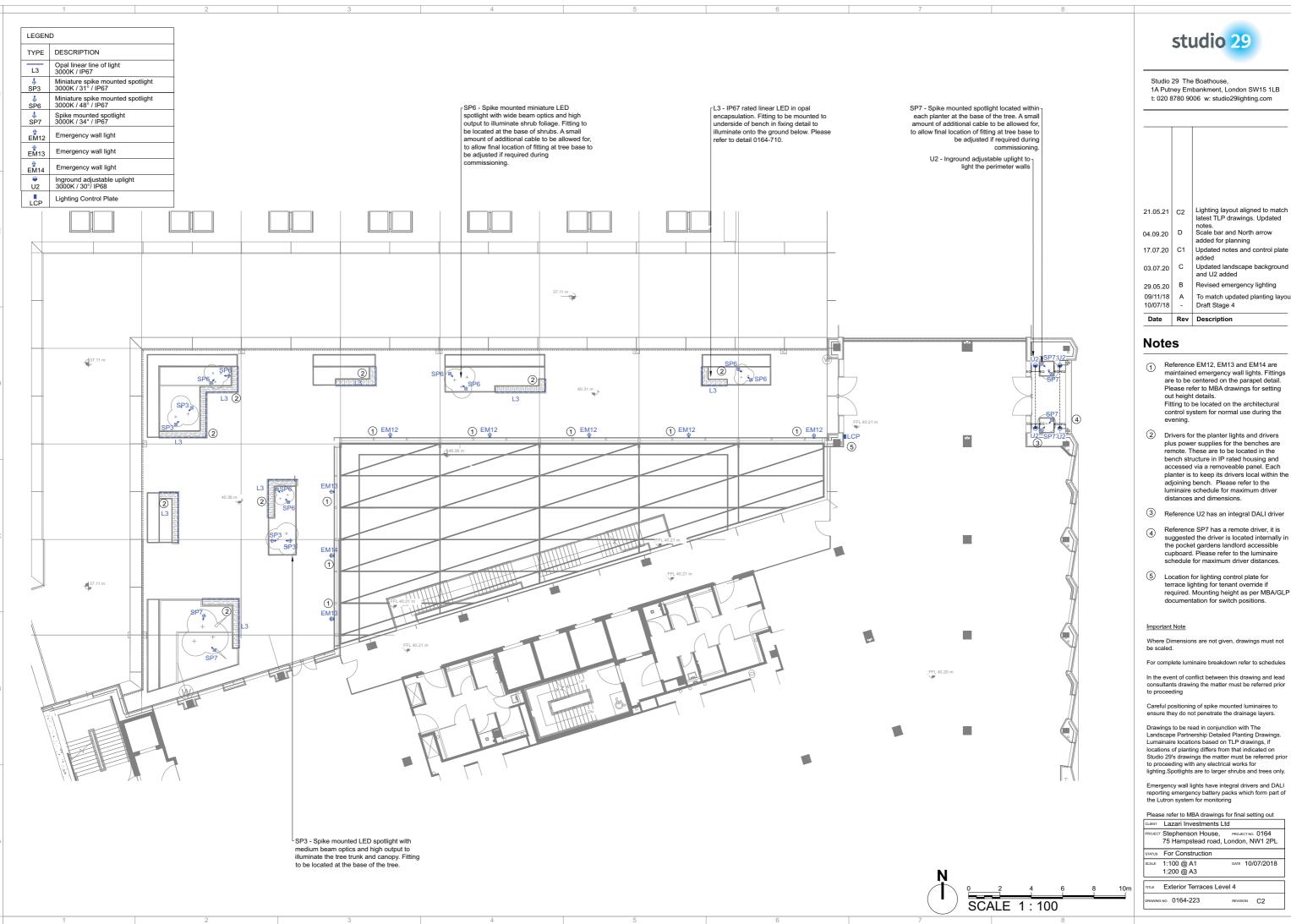


Appendix



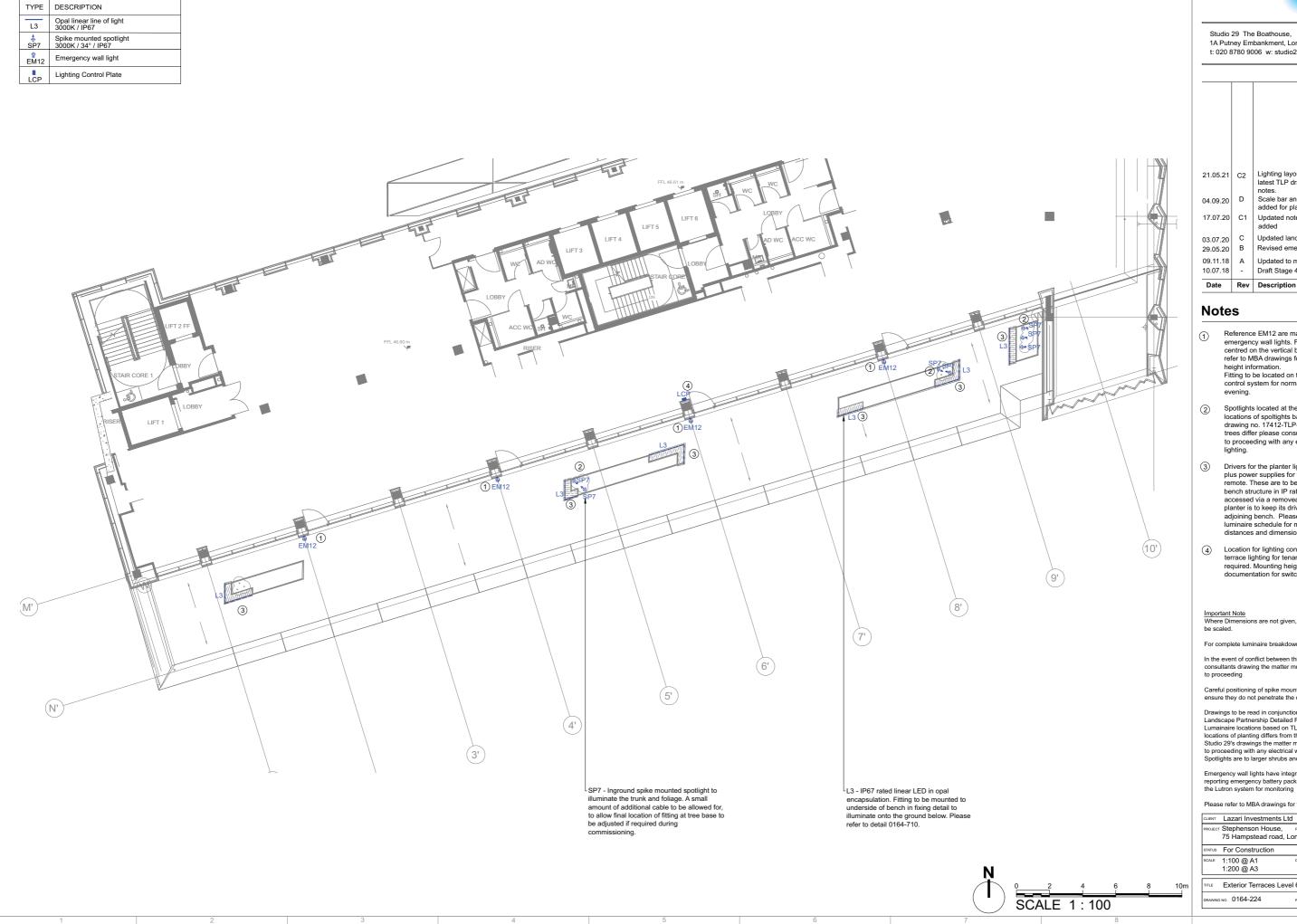






latest TLP drawings. Updated notes. D Scale bar and North arrow added for planning 17.07.20 C1 Updated notes and control plate added 03.07.20 C Updated landscape background and U2 added 29.05.20 B Revised emergency lighting 09/11/18 A To match updated planting layou Draft Stage 4
notes. Scale bar and North arrow added for planning 17.07.20 C1 Updated notes and control plate added 03.07.20 C Updated landscape background and U2 added 29.05.20 B Revised emergency lighting
notes. Scale bar and North arrow added for planning 17.07.20 C1 Updated notes and control plate added 03.07.20 C Updated landscape background and U2 added
04.09.20 D notes. Scale bar and North arrow added for planning 17.07.20 C1 Updated notes and control plate added 03.07.20 C Updated landscape background
04.09.20 D notes. Scale bar and North arrow added for planning 17.07.20 C1 Updated notes and control plate
notes. 04.09.20 D Scale bar and North arrow
21.05.21 C2 Lighting layout aligned to match

planter is to keep its drivers local within the



LEGEND



Studio 29 The Boathouse, 1A Putney Embankment, London SW15 1LB t: 020 8780 9006 w: studio29lighting.com

21.05.21	C2	Lighting layout aligned to match latest TLP drawings. Updated notes.
04.09.20	D	Scale bar and North arrow added for planning
17.07.20	C1	Updated notes and control plate added
03.07.20 29.05.20	C B	Updated landscape background Revised emergency lighting
09.11.18 10.07.18	A -	Updated to match planting layout Draft Stage 4

Notes

- Reference EM12 are maintained emergency wall lights. Fittings are to be centred on the vertical brick piers. Please refer to MBA drawings for setting out 1 height information.
 Fitting to be located on the architectural control system for normal use during the evening.
- Spotlights located at the base of trees, locations of spotlights based on TLP drawing no. 17412-TLP-460. If locations of trees differ please consult Studio 29 prior 2 to proceeding with any electrical works for lighting.
- Drivers for the planter lights and drivers plus power supplies for the benches are remote. These are to be located in the 3 bench structure in IP rated housing and accessed via a removeable panel. Each planter is to keep its drivers local within the adjoining bench. Please refer to the luminaire schedule for maximum driver distances and dimensions.
- 4 Location for lighting control plate for terrace lighting for tenant override if required. Mounting height as per MBA/GLP documentation for switch positions.

For complete luminaire breakdown refer to schedules

In the event of conflict between this drawing and lead consultants drawing the matter must be referred prior to proceeding

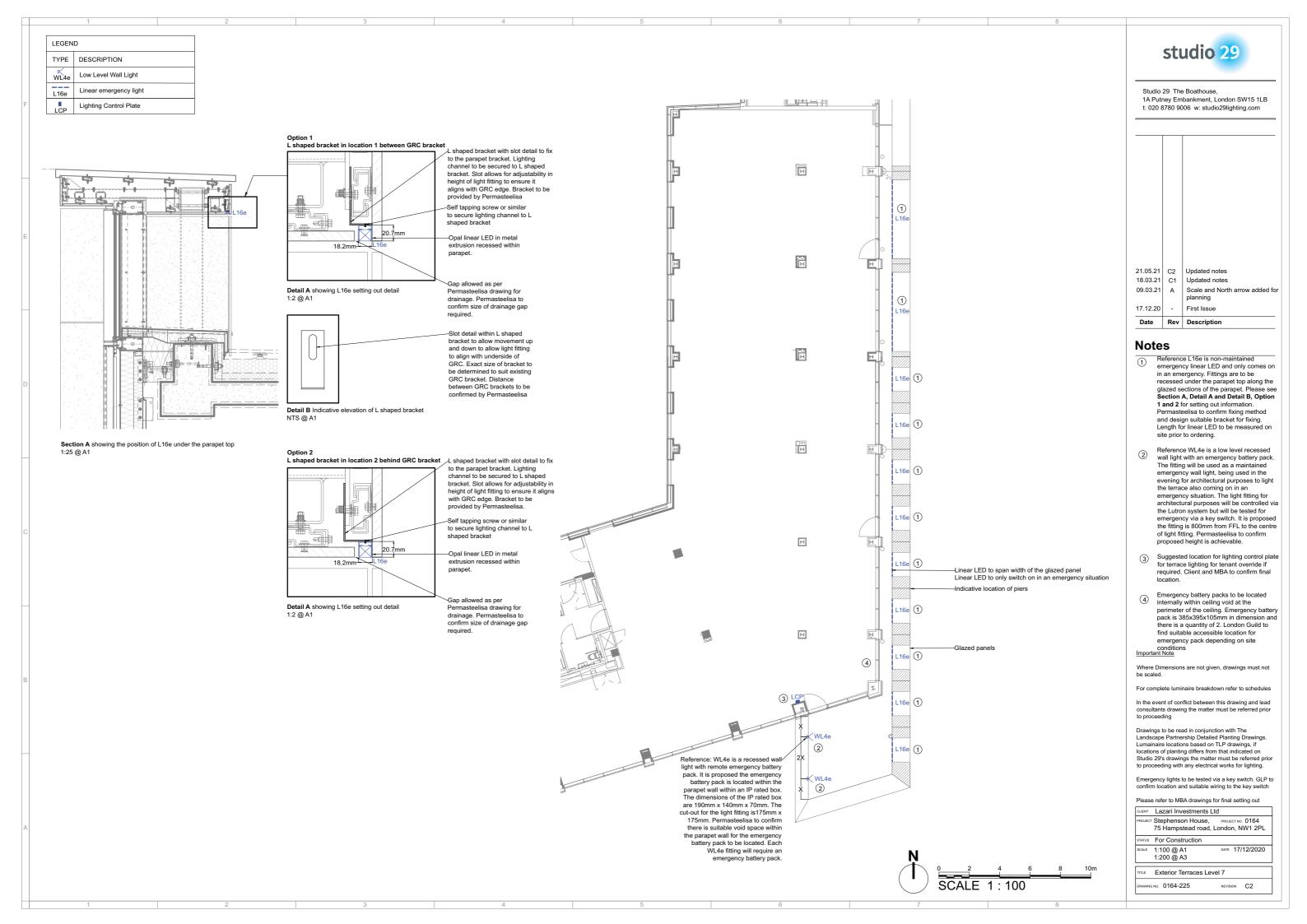
Careful positioning of spike mounted luminaires to ensure they do not penetrate the drainage layers.

Drawings to be read in conjunction with The Landscape Partnership Detailed Planting Drawings. Lumainaire locations based on TLP drawings, if locations of planting differs from that indicated on Studio 29's drawings the matter must be referred prior to proceeding with any electrical works for lighting. Spotlights are to larger shrubs and trees only.

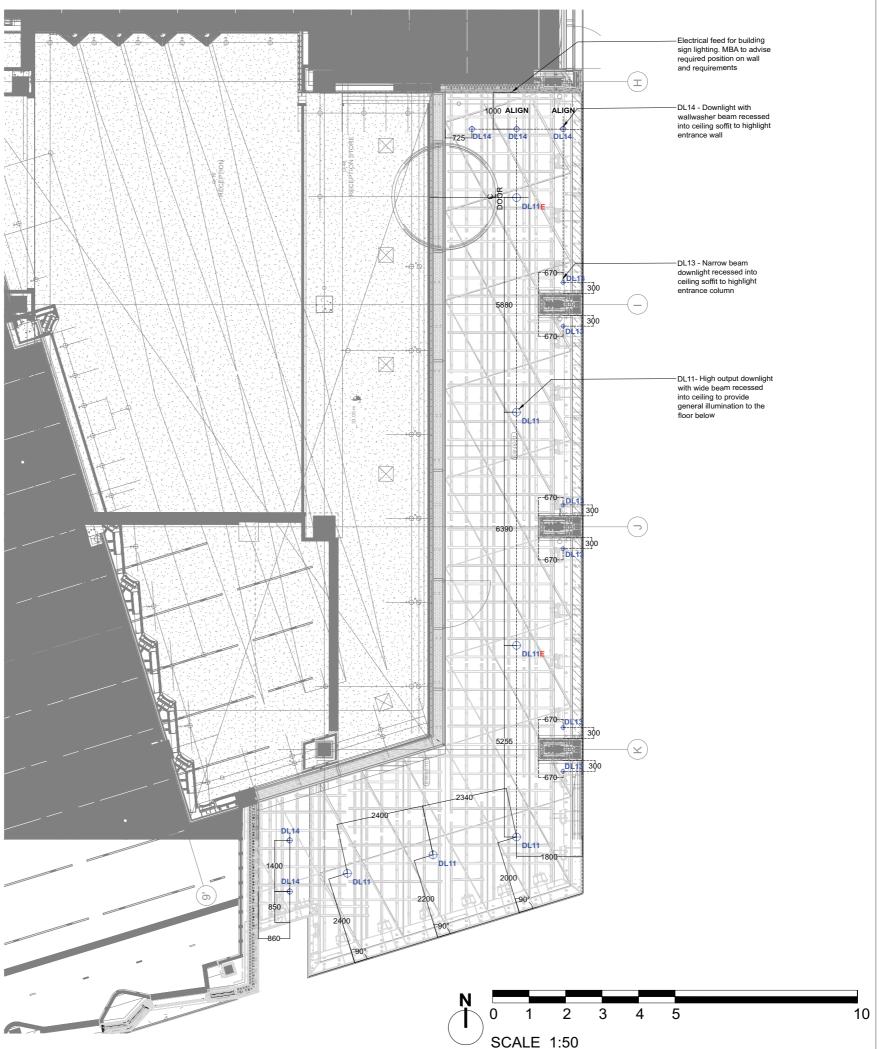
Emergency wall lights have integral drivers and DALI reporting emergency battery packs which form part of the Lutron system for monitoring

Please refer to MRA drawings for final setting out

	Please	e reter to MBA drawings to	or tinal	sett	ing out	
	CLIENT	Lazari Investments Ltd	ı			
	PROJECT	Stephenson House, 75 Hampstead road, Lo				
	STATUS	For Construction				
	SCALE	1:100 @ A1 1:200 @ A3	DATE	10/0	07/2018	
ĺ	TITLE	Exterior Terraces Level	16			ı
	IIILE	Exterior remaces Leve	10			
	DRAWING	NO. 0164-224	REVISION	ON	C2	



LEGEND				
TYPE	DESCRIPTION			
⊕ DL11	Recessed downlight with wide beam, high output, warm white			
⊕ DL11 E	Recessed maintained emergency downlight with wide beam, high output, warm white, supplied with 3hr emergency pack			
⊕ DL13	Recessed downlight with narrow beam, warm white			
Ф DL14	Recessed downlight with wallwash beam, high output, warm white			



studio 29

Studio 29 The Boathouse, 1A Embankment, London SW15 1LB t:020 8780 9006 w:studio29lighting.com

Date	Rev	Description
12/07/18	DFT	First Issue DRAFT
09/11/18	Α	Generally updated following comment from MBA
29/05/20	В	Downlights added
03/07/20	С	L5 removed; setting out added; legend and annotation updated
17/07/20	C1	Notes updated
04/09/20	D	North arrow and scale bar adde for planning
23/03/21	Е	Draft for Co-ordination
22/04/21	F	Revised location of downlights t
10/06/21	C2	Co-ordination for construction

Notes

All emergency lighting in this area is DALI reporting and forms part of the Lutron system for monitoring

The drawing has been updated following the workshop meeting 20.04.21. As per the discussions the edge ceiling structure adjacent to the columns would need to be addressed to accommodate the downlights to the columns. Co-ordination to be completed by Permasteelisa and 8Build

DALI drivers and emergency packs for luminaires are remote and are to be housed in the ceiling void behind the fitting. Maximum driver distances and dimensions can be found in the luminaire specification.

Remote emergency LED indicators are to be located adjacent to the relevant luminaires.

Important Note

Where Dimensions are not given, drawings must not be scaled.

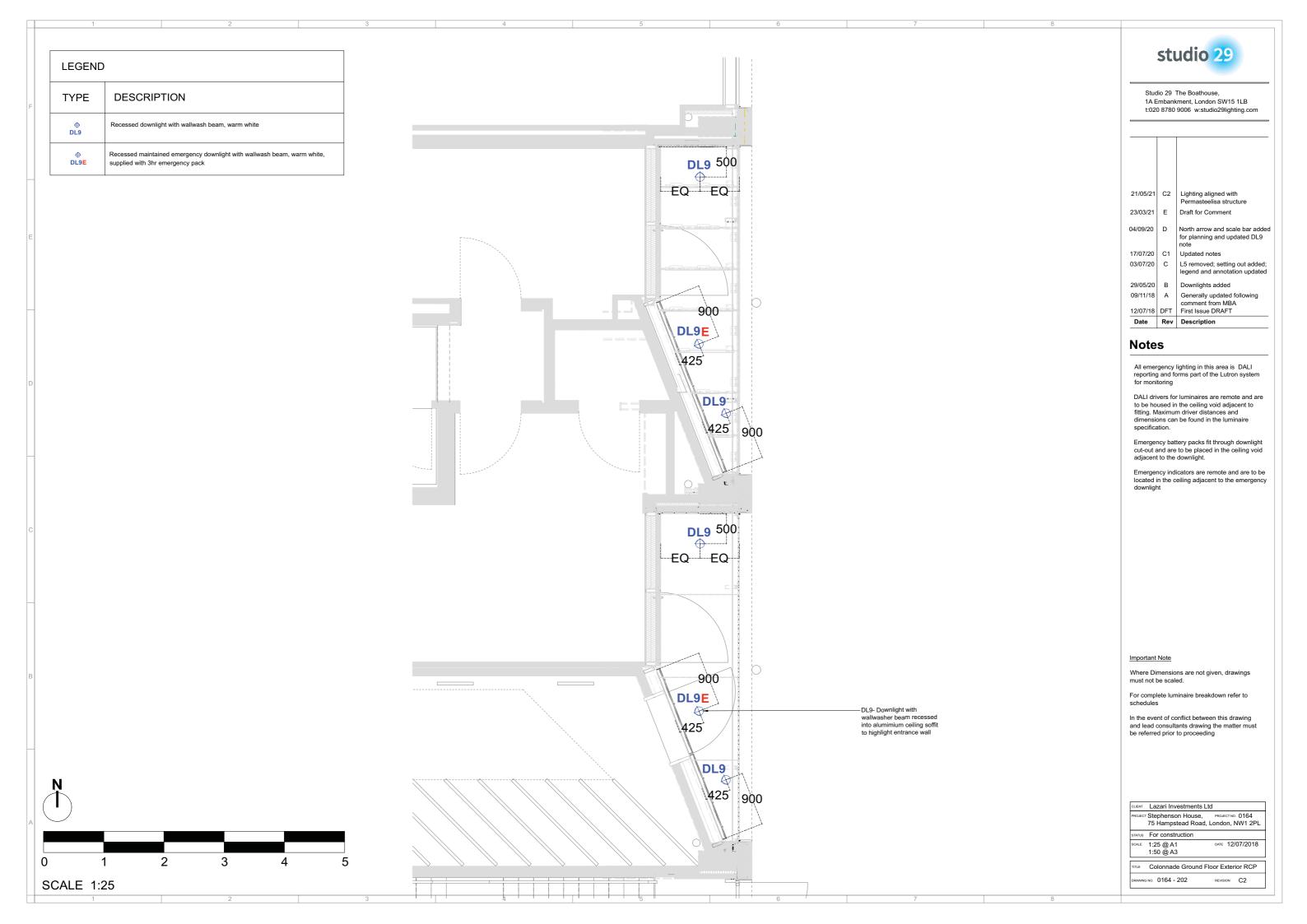
For complete luminaire breakdown refer to schedules

In the event of conflict between this drawing and lead consultants drawing the matter must be referred prior to proceeding

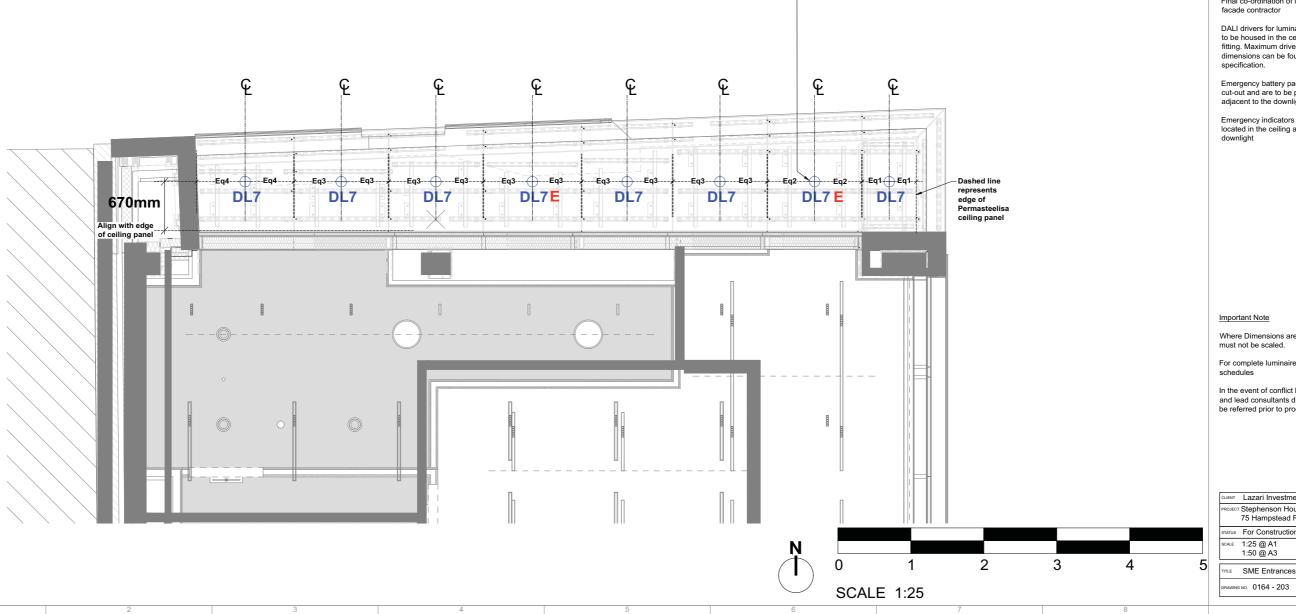
CLIENT	Lazari Investments	Ltd	
PROJECT	Stephenson House, 75 Hampstead Roa		
STATUS	For Construction		
SCALE	1:50 @ A1 1:100 @ A3	DATE	12/07/2018
TITLE	Colonnade First Flo	or RCP	

REVISION C2

VING NO. 0164 - 201



LEGEND					
TYPE	DESCRIPTION				
⊕ DL7	Recessed downlight with wide beam, warm white				
⊕ DL7 _E	Recessed maintained emergency downlight with wide beam, warm white, supplied with 3hr emergency pack				



DL7- Downlight recessed into GFRC ceiling soffit to illuminate SME entrance



Studio 29 The Boathouse, 1A Embankment, London SW15 1LB t:020 8780 9006 w:studio29lighting.com

Date	Rev	Description
12/07/18	DFT	First Issue DRAFT
09/11/18	Α	Generally updated following comment from MBA
29/05/20	В	Downlights added
03/07/20	С	L5 removed; setting out added; legend and annotation updated
17/07/20	C1	Updated notes
04/09/20	D	North arrow and scale bar adde for planning
23/03/21	E	Draft for Co-ordination
21/05/21	C2	Lighting aligned with Permasteelisa structure

Notes

All emergency lighting in this area is DALI reporting and forms part of the Lutron system for monitoring

Final co-ordination of luminaires required with facade contractor

DALI drivers for luminaires are remote and are to be housed in the ceiling void adjacent to fitting. Maximum driver distances and dimensions can be found in the luminaire specification.

Emergency battery packs fit through downlight cut-out and are to be placed in the ceiling void adjacent to the downlight.

Emergency indicators are remote and are to be located in the ceiling adjacent to the emergency downlight

Important Note

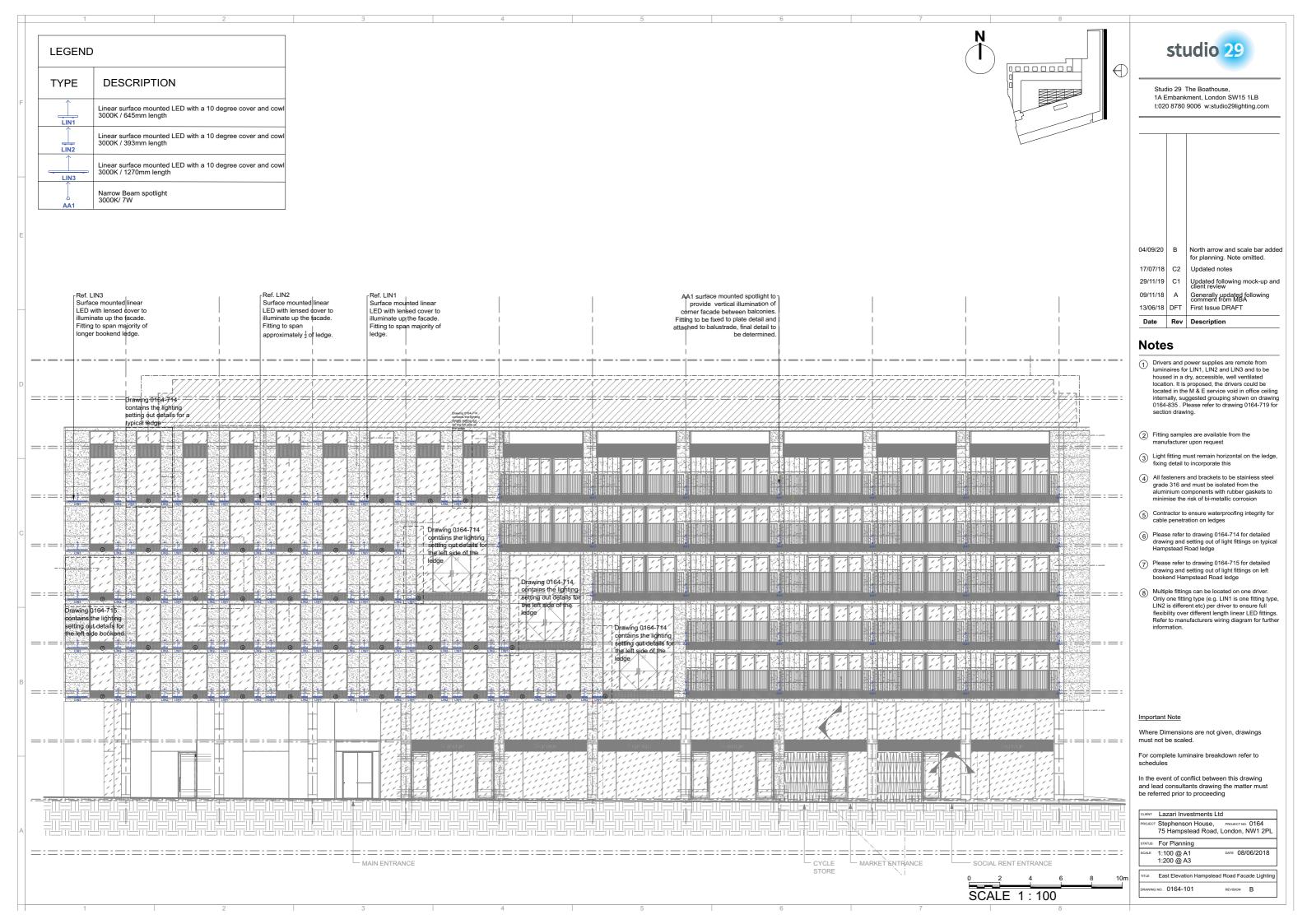
Where Dimensions are not given, drawings must not be scaled.

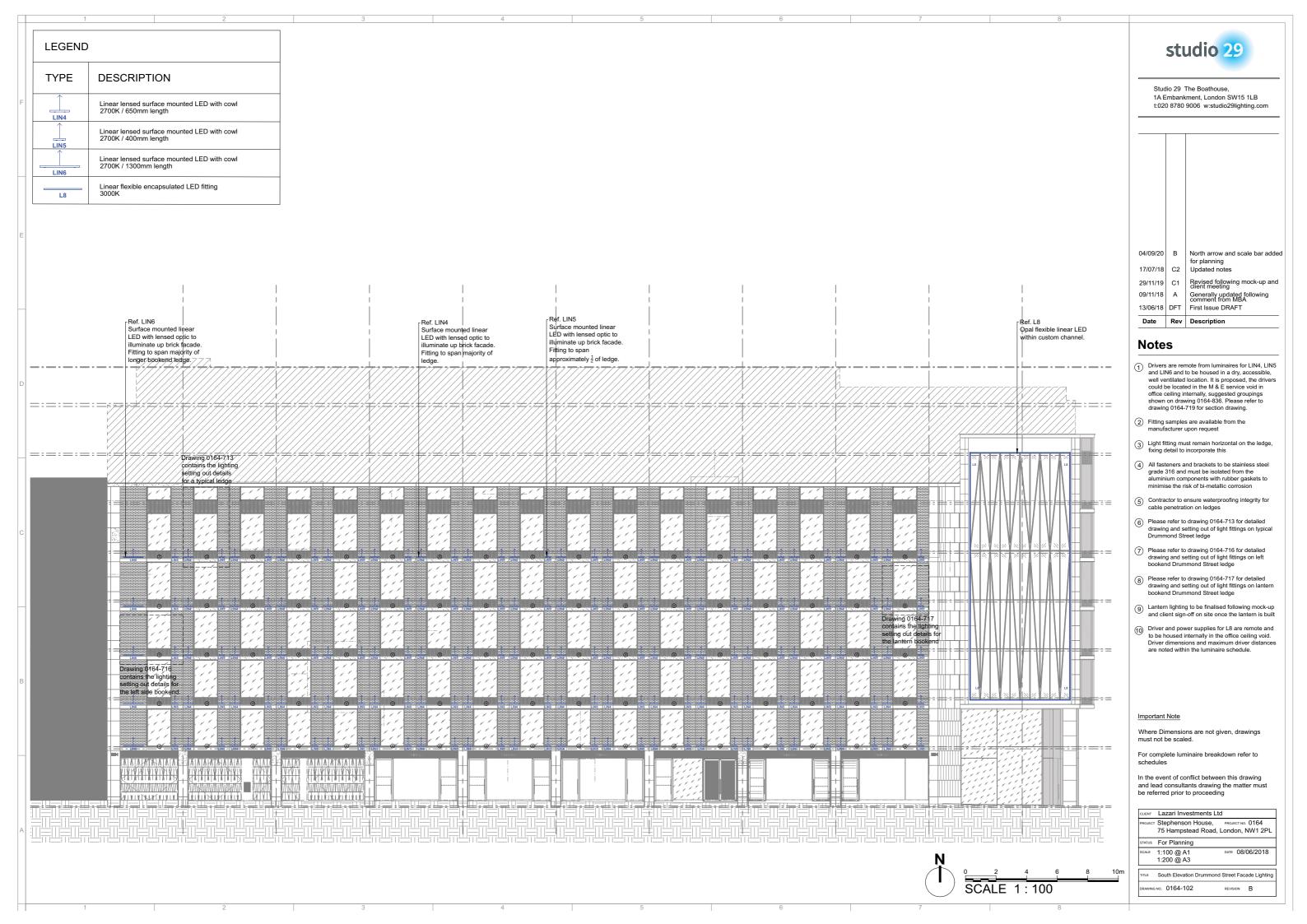
For complete luminaire breakdown refer to schedules

In the event of conflict between this drawing and lead consultants drawing the matter must be referred prior to proceeding

	CLIENT Lazari Investments Ltd						
		PROJECT Stephenson House, PROJECT NO. 0164 75 Hampstead Road, London, NW1 2PL					
		STATUS	For Construction				
		SCALE	1:25 @ A1 1:50 @ A3	DATE	12/07/2018		
_							
5		SME Entrances First Floor Exterior RCP					

REVISION C2





studio 29 the language of light

DETAILED LUMINAIRE SCHEDULE – EXTERIOR LIGHTING

PROJECT: STEPHENSON HOUSE

EXTERIOR LIGHTING

REFERENCE: 0164 - SC2

CLIENT: LAZARI INVESTMENTS LIMITED

DATE: 29 NOVEMBER 2019

REVISION: C5 - ISSUED 30 07 21

Project: Stephenson House – Exterior Lighting

Reference: 0164 – SC2

Revision Status

C1 / 29.11.19 - FOR CONSTRUCTION

A / 03.07.20 - DL7, DL7E, DL9, DL9E, DL11, DL11E, EM4, EM5, EM7, L4, SP3, SP4, SP6 and SP7 added from SC1; DL13, DL14, EM11, EM12, EM13, EM14, U2 added; DL12 deleted C2 / 17.07.20 - DRIVER INFORMATION ADDED

C3 / 05.03.21 - SP7, EM7 and AA1 UPDATED, WL4e and L16e ADDED

C4 / 21.05.21 - WL4e RAL information added, DL7E and DL9E emergency battery pack dimensions added, SP3, SP4, SP6 and SP7 driver note updated, AA1 notes updated

1. GENERAL CONDITIONS

- 1.1 The specification sheets indicating the lighting design requirements for specific areas within this project form part of this document and should be read in conjunction with this preamble and the Lighting Consultant's relevant drawings, and associated sketches.
- 1.2 This specification supersedes all previous issues.

C 5 / 30.07.21 - RAL colour confirmed for LIN4, LIN5 and LIN6

- 1.3 All quantities shall be checked against the construction drawings.
- 1.4 All luminaires fixed to Portland stone or similar should be resin fixed.

2 SAMPLES & PROTOTYPES

- 2.1 All lighting equipment shall be currently available working samples will be required for submission and are to be approved by the Client/Architect.
- 2.2 Should a sample of a standard, or prototype of a special luminaire or variant of a standard luminaire be ordered, its cost shall either be incorporated in a tender price, or shall be invoiced to the Client or his nominated representative separately, as agreed.
- 2.3 Any such sample prototype or variant shall comply with the lighting design specification, and shall be submitted to the Lighting Consultant, together with full photometric and dimensional data if specifically requested, to enable both its accurate assessment and the detailing of any adjustments deemed necessary prior to the commencement of full production.

3 STANDARDS COMPLIANCE

3.1 For projects in the United Kingdom, all equipment supplied shall comply with the relevant BS, EN and IEC requirements, and be capable of installation in accordance with the manufacturers' instructions, the current edition of the IEE Wiring Regulations and all statutory and local authority requirements. Standards requirements particular to individual luminaire types are indicated on the relevant specification sheet.

Project: Stephenson House – Exterior Lighting

Reference: 0164 – SC2

3.2 Not withstanding the above, the following British Standards in particular should be checked for compliance:

- BS 559Electric signs and high voltage luminous discharge tube installations.
- BS 3535 Safety isolating transformers for industrial and domestic purposes.
- BS 4533 Luminaires.
- 3.3 For projects outside the United Kingdom, all equipment supplied shall comply with the relevant standards currently in force in the project's country of origin.
- 3.4 The cost of obtaining any necessary approvals shall be included in any tender price, detailed as a separate item.

4 PROTECTION

- 4.1 All equipment shall be supplied with adequate means of protection to ensure its preservation during transport to site and any subsequent storage prior to installation.
- 4.2 All vulnerable finished parts liable to scratching or other abrasion during handling and installation shall be further protected by a removable film applied prior to dispatch.

5. TECHNICAL REQUIREMENTS

- 5.1 Luminaires
- 5.1.1 Equipment selected as a standard item from a particular manufacturer's range has been specified with a view to performance, optics, maintenance, quality, aesthetics, etc.
- 5.1.2 Should alternative equipment be offered, full technical and photometric data shall be submitted to Studio29 Ltd in time to enable its accurate assessment. If any variants of standard luminaires are required, these shall be developed by the manufacturer of the standard luminaire, unless otherwise specifically stated, and shall be manufactured to the same standards as the equivalent standard luminaire.
- 5.1.3 If specified, two copies of all working drawings of proposed variants dimensioned in millimetres shall be supplied to Studio29 Ltd for approval prior to fabrication.
- 5.1.4 Notwithstanding the above, the manufacturer shall remain responsible for ensuring compliance with relevant standards, the accuracy of the information shown on his drawings at all times and for ensuring that the equipment shown fulfils the requirements of this specification.
- 5.1.5 Studio29 Ltd cannot accept responsibility for the installation of non-approved luminaires.
- 5.1.6 The final location of each luminaire and, where relevant, its integration with the architecture shall be as detailed on the construction issue drawings. Studio29 Ltd cannot accept responsibility for luminaires installed in a manner other than indicated in the relevant drawings or as otherwise agreed and minuted.
- 5.2 Control Gear
- 5.2.1 All necessary control gear and transformers shall be mounted within the luminaire unless shown as being located remote or adjacent. All such gear shall be of good quality construction, shall comply with all relevant statutory regulations, shall be compatible with the lamps specified, and shall be mounted and wired in accordance with the manufacturers' instructions.

Project: Stephenson House – Exterior Lighting

Reference: 0164 – SC2

- 5.2.2 Where appropriate, the luminaire manufacturer shall ensure compatibility between control gear and the proposed control system. The manufacturer shall also provide all necessary data regarding gear losses, etc. to enable dimmers / contactors to be sized correctly.
- 5.2.3 Transformers shall have a stable output voltage of 11.8V / 22.8V, under varying loads, where the output voltage is nominally quoted at 12V / 24V.
- 5.2.4 Unless otherwise stated, all transformers shall be suitable for dimming on their primary side via a thyristor controlled remote lighting control system.
- 5.2.5 Where gear or transformers are installed remotely, care should be taken to ensure that any audible sounds generated by control gear, or by lamp filaments via control gear are kept to a minimum. Where this is particularly crucial, detailed acoustic requirements are included in the Specific Conditions.
- 5.2.6 All equipment shall be protected from unexpected mains failure, and mains borne interference.
- 5.2.7 Electrical supply connections shall be designed to facilitate the easy installation of the luminaires. The supplier shall liaise with the Electrical Engineer to ensure any specific requirements of his in this respect are met.
- 5.3 Lamps
- 5.3.1 The following lamp manufacturers are approved;
 General Electric; Osram Sylvania; Philips; Venture; and BLV.
- 5.3.2 Incandescent and tungsten halogen lamps shall not be operated, other than for initial testing, prior to final inspection.
- 5.3.3 Should alternative lamps be offered, these shall require the approval of Studio29 Ltd except where noted below, <u>provided</u> particular attention is paid to colour rendering, colour temperature, light distribution, life expectancy and general performance when selecting such alternatives.
- 5.3.4 Allowance shall be made for the specialised installation of lighting as required (ie cold cathode). Such installation may require the services of a specialise sub contractor
- 5.3.5 Studio29 Ltd recommends that a lamp recycling/disposal regime be assessed by the client/building operator prior to completion of the project. Services provided by various lamp recycling contractors vary and the suitability for a particular project and the completeness of their recycling processes should be assessed by the operator.

Disposal of twenty fluorescent, or metal halide, lamps or greater is considered hazardous waste disposal and must be carried out at a licensed landfill site or through a licensed recycling company.

Recommended lamp recycling contractors include but are not limited to:

THE LAMP RECYCLING COMPANY

7 Bessemer Park Bessemer Road Basingstoke, RG21 3NB United Kingdom

the language of light **DETAILED LUMINAIRE SCHEDULE**

Project: Stephenson House - Exterior Lighting

Reference: 0164 - SC2

LUMINAIRE REF: AA1 - UPDATED 21.05.21

Meyer (Commercial Lighting) Manufacturer:

Office: 01489 581 002 Mobile: 07885 674 299 Tel:

Contact: **Howard Lawrence** Email: howard.lawrence@commercial-lighting.co.uk

Hampstead Road - Exterior Facade Location:

Cat. Reference: 8 818 006 118 CUSTOM RAL FINISH

Description: Surface Mounted exterior luminaire, narrow beam

height (including fixing bracket) Dimensions: 112 mm

> 83 mm depth

Width (including fixing bracket) 93 mm

Custom made bracket to attach to balustrade plate, bracket to be designed by Accessories:

Permasteelisa Integral DALI Control Gear:

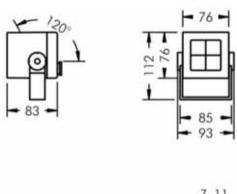
RAL to match balconies -Colour:

RAL 1035 Pearl Beige

Suitable safety precautions to be taken when working at heights CDM/H&S: Exact fixing method to be determined by Permasteelisa Notes:

Circuit Wattage: 4W Voltage: 230V Beam Angle: 6° Colour Kelvin: 3000K Luminous Flux: 301 lm CRI (Ra) >80





Project: Stephenson House – Exterior Lighting

Reference: 0164 – SC2

LUMINAIRE REF: DL7 – UPDATED 17.07.20

Manufacturer: Bega (supplied by Fagerhult)

Tel: Office: 020 7403 4123 Mobile: 075 8550 9782

Contact: Sam Ashdown Email: sam.ashdown@fagerhult.co.uk

Location: SME Entrance
Cat. Reference: **24823 K3 W RAL**

Description: Recessed downlight / 35° / 3000K / IP65

Dimensions: 145 mm diameter

80 mm depth

90 mm recessed depth required

Ceiling cut-out: 128 mm diameter

Accessories: -

Control Gear: Remote driver / DALI dimming
Colour: Custom RAL 9016 Traffic White

CDM/H&S: -

Notes: **Driver dimensions as noted in adjacent image**

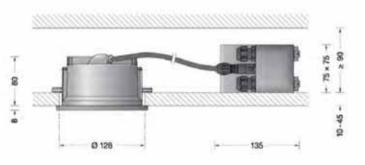
Maximum Driver Distance: 0.5m - Please locate adjacent to luminaire in ceiling void

Longer driver distances can be requested if required

Circuit Wattage: 10 W
Voltage: 170-280 V
Beam Angle: 35°
Colour Kelvin: 3000K
Luminous Flux: 1151 lm
CRI (Ra) 80







Project: Stephenson House – Exterior Lighting

Reference: 0164 – SC2

LUMINAIRE REF: DL7E - UPDATED 21.05.21

Manufacturer: Bega (supplied by Fagerhult)

Tel: Office: 020 7403 4123 Mobile: 075 8550 9782

Contact: Sam Ashdown Email: sam.ashdown@fagerhult.co.uk

Location: SME Entrance
Cat. Reference: **24823 K3 W RAL**

Description: Recessed downlight / 35° / 3000K / IP65

Dimensions: 145 mm diameter

80 mm depth

90 mm recessed depth required

Ceiling cut-out: 128 mm diameter

Accessories: **3-hour emergency battery pack**Control Gear: Remote driver / DALI dimming
Colour: Custom RAL 9016 Traffic White

CDM/H&S: -

Notes: Architectural luminaire to be used as maintained emergency fitting and to be supplied

with remote 3 hour emergency DALI battery pack to link up to the Lutron system

Driver dimensions as noted in adjacent image

Maximum Driver Distance: 0.5m - Please locate adjacent to luminaire in ceiling void

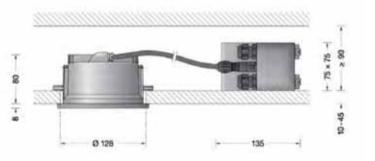
Longer driver distances can be requested if required

Emergency pack dimensions 230mm x 80mm x 65mm to fit through cut-out

Circuit Wattage: 10 W
Voltage: 170-280 V
Beam Angle: 35°
Colour Kelvin: 3000K
Luminous Flux: 1151 lm
CRI (Ra) 80







Project: Stephenson House – Exterior Lighting

Reference: 0164 – SC2

LUMINAIRE REF: DL9 – UPDATED 17.07.20

Manufacturer: Bega (supplied by Fagerhult)

Tel: Office: 020 7403 4123 Mobile: 075 8550 9782

Contact: Sam Ashdown Email: sam.ashdown@fagerhult.co.uk

Location: Residential Entrance
Cat. Reference: **24841 K3 RAL**

Description: Recessed downlight / wallwash beam / 3000K / IP65
Dimensions: 145 mm diameter
80 mm depth

90 mm recessed depth required

Ceiling cut-out: 128 mm diameter

Accessories: -

Control Gear: Remote driver / DALI dimming
Colour: Custom RAL 9005 Jet Black

CDM/H&S: -

Notes: **Driver dimensions as noted in adjacent image**

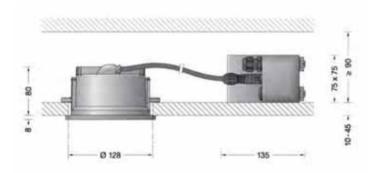
Maximum Driver Distance: 0.5m - Please locate adjacent to luminaire in ceiling void

Longer driver distances can be requested if required

Circuit Wattage: 14 W
Voltage: 176-280 V
Beam Angle: 63/64°
Colour Kelvin: 3000K
Luminous Flux: 1212 lm
CRI (Ra) 80







Project: Stephenson House – Exterior Lighting

Reference: 0164 – SC2

LUMINAIRE REF: DL9E - UPDATED 21.05.21

Manufacturer: Bega (supplied by Fagerhult)

Tel: Office: 020 7403 4123 Mobile: 075 8550 9782

Contact: Sam Ashdown Email: sam.ashdown@fagerhult.co.uk

Location: Residential Entrance
Cat. Reference: 24841 K3 RAL

Description: Recessed downlight / wallwash beam / 3000K / IP65
Dimensions: 145 mm diameter
80 mm depth

20 mm recessed de

90 mm recessed depth required

Ceiling cut-out: 128 mm diameter

Accessories: **3-hour emergency battery pack**Control Gear: Remote driver / DALI dimming
Colour: Custom RAL 9005 Jet Black

CDM/H&S: -

Notes: Architectural luminaire to be used as maintained emergency fitting and to be supplied

with remote 3 hour emergency DALI battery pack to link up to the Lutron system

Driver dimensions as noted in adjacent image

Maximum Driver Distance: 0.5m - Please locate adjacent to luminaire in ceiling void

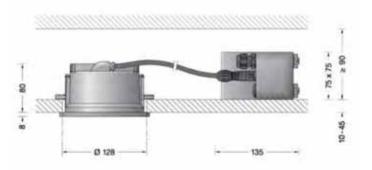
Longer driver distances can be requested if required

Emergency pack dimensions 230mm x 80mm x 65mm to fit through cut-out

Circuit Wattage: 14 W
Voltage: 176-280 V
Beam Angle: 63/64°
Colour Kelvin: 3000K
Luminous Flux: 1212 lm
CRI (Ra) 80







Project: Stephenson House – Exterior Lighting

Reference: 0164 – SC2

LUMINAIRE REF: DL11 – UPDATED 17.07.20

Manufacturer: Bega (supplied by Fagerhult)

Tel: Office: 020 7403 4123 Mobile: 075 8550 9782

Contact: Sam Ashdown Email: sam.ashdown@fagerhult.co.uk

Location: Main Entrance Colonnade

Cat. Reference: 24831 K3 W RAL

Description: Recessed downlight / 56° / 3000K / IP65

Dimensions: 220 mm diameter

105 mm depth

115 mm recessed depth required

Ceiling cut-out: 202 mm diameter

Accessories: -

Control Gear: Remote driver / DALI dimming
Colour: Custom RAL 9016 Traffic White

CDM/H&S:

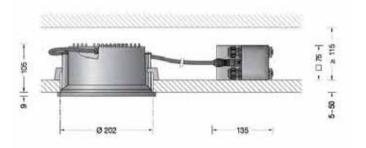
Notes: **Driver dimensions as noted in adjacent image**

Maximum Driver Distance: 0.5m - Please locate adjacent to luminaire in ceiling void

Longer driver distances can be requested if required

Circuit Wattage: 19.4 W
Voltage: 176-276 V
Beam Angle: 56°
Colour Kelvin: 3000K
Luminous Flux: 2454 lm
CRI (Ra) 80





Project: Stephenson House – Exterior Lighting

Reference: 0164 – SC2

LUMINAIRE REF: DL11E - UPDATED 17.07.20

Manufacturer: Bega (supplied by Fagerhult)

Tel: Office: 020 7403 4123 Mobile: 075 8550 9782

Contact: Sam Ashdown Email: sam.ashdown@fagerhult.co.uk

Location: Main Entrance Colonnade

Cat. Reference: 24831 K3 W RAL

Description: Recessed downlight / 56° / 3000K / IP65

Dimensions: 220 mm diameter

105 mm depth

115 mm recessed depth required

Ceiling cut-out: 202 mm diameter

Accessories: **3-hour emergency battery pack**Control Gear: Remote driver / DALI dimming
Colour: Custom RAL 9016 Traffic White

CDM/H&S: -

Notes: Architectural luminaire to be used as maintained emergency fitting and to be supplied

with remote 3 hour emergency DALI battery pack to link up to the Lutron system

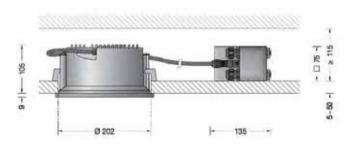
Driver dimensions as noted in adjacent image

Maximum Driver Distance: 0.5m - Please locate adjacent to luminaire in ceiling void

Longer driver distances can be requested if required

Circuit Wattage: 19.4 W
Voltage: 176-276 V
Beam Angle: 56°
Colour Kelvin: 3000K
Luminous Flux: 2454 lm
CRI (Ra) 80





Project: Stephenson House – Exterior Lighting

Reference: 0164 – SC2

LUMINAIRE REF: DL12 - OMITTED 03.07.20

Manufacturer: Meyer (Commercial Lighting)

Tel: Office: 01489 581 002 Mobile: 07885 674 299

Contact: Howard Lawrence Email: howard.lawrence@commercial-lighting.co.uk

Location: Exterior Lantern Cat. Reference: **8 314 156 018**

Description:Recessed exterior downlight luminaire, narrow beamDimensions:138 mmdiameterCeiling cut-out:90 mmheight

125 mm cut-out

Accessories: -

Control Gear: Remote driver, Dali

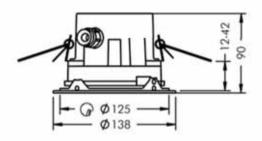
Colour: Silver grey

CDM/H&S: -

Notes: Fitting subject to change following 1.1 mockup

Circuit Wattage: 19W
Voltage: 230V
Beam Angle: 20°
Colour Kelvin: 3000K
Luminous Flux: 1857 lm
CRI (Ra) 80





Project: Stephenson House – Exterior Lighting

Reference: 0164 – SC2

LUMINAIRE REF: DL13 – UPDATED 17.07.20

Manufacturer: Bega (supplied by Fagerhult)

Tel: Office: 020 7403 4123 Mobile: 075 8550 9782

Contact: Sam Ashdown Email: sam.ashdown@fagerhult.co.uk

Location: Main Entrance Colonnade

Cat. Reference: 24382 K3 W RAL

Description: Recessed downlight / 16° / 3000K / IP65

Dimensions: 110 mm diameter

70 mm depth

110 mm recessed depth required

Ceiling cut-out: 97 mm diameter

Accessories: -

Control Gear: Remote driver / DALI dimming
Colour: Custom RAL 9016 Traffic White

CDM/H&S:

Notes: **Driver dimensions as noted in adjacent image**

Maximum Driver Distance: 0.5m - Please locate adjacent to luminaire in ceiling void

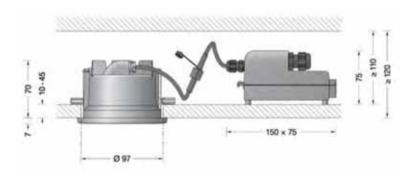
Longer driver distances can be requested if required

Circuit Wattage: 14 W

Voltage: 230 V with remote driver

Beam Angle: 16°
Colour Kelvin: 3000K
Luminous Flux: 1459 lm
CRI (Ra) 80





Project: Stephenson House – Exterior Lighting

Reference: 0164 – SC2

LUMINAIRE REF: DL14 – UPDATED 17.07.20

Manufacturer: Bega (supplied by Fagerhult)

Tel: Office: 020 7403 4123 Mobile: 075 8550 9782

Contact: Sam Ashdown Email: sam.ashdown@fagerhult.co.uk

Location: Main Entrance Colonnade

Cat. Reference: 24842 K3 W RAL

Description: Recessed downlight / wallwash beam / 3000K / IP65
Dimensions: 175 mm diameter

90 mm depth

95 mm recessed depth required

Ceiling cut-out: 160 mm diameter

Accessories: -

Control Gear: Remote driver / DALI dimming
Colour: Custom RAL 9016 Traffic White

CDM/H&S: -

Notes: **Driver dimensions as noted in adjacent image**

Maximum Driver Distance: 0.5m - Please locate adjacent to luminaire in ceiling void

Longer driver distances can be requested if required

Circuit Wattage: 19.6 W
Voltage: 176-280 V
Beam Angle: 70/67°
Colour Kelvin: 3000K
Luminous Flux: 1902 lm
CRI (Ra) 80



Project: Stephenson House – Exterior Lighting

Reference: 0164 – SC2

LUMINAIRE REF: EM4 – UPDATED 17.07.20

Manufacturer: We-ef

Tel: Office: 016 1518 2900 Mobile: 079 0425 5457 Contact: Rob Marsh Email: r.marsh@we-ef.com

Location: Exterior terrace lighting

Cat. Reference: **132-0530**

Description: Emergency wall light

Dimensions: 222mm Length

220mm Height 220mm Width

Accessories: -

Control Gear: Integral driver / DALI dimming

Colour: Custom RAL 1035 Peal Beige – Client to confirm RAL colour prior to ordering

CDM/H&S:

Notes: Architectural luminaire to be used as maintained emergency fitting with integral

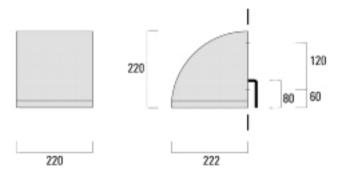
3-hour emergency DALI battery pack to link up to the Lutron system

Circuit Wattage: 14W Voltage: 220-240V

Beam Angle: Asymmetric forward throw beam

Colour Kelvin: 3000K
CRI (Ra): 80
Luminous Flux: 1281 lm





Project: Stephenson House – Exterior Lighting

Reference: 0164 – SC2

LUMINAIRE REF: EM5 - UPDATED 17.07.20

Manufacturer: We-ef

Tel: Office: 016 1518 2900 Mobile: 079 0425 5457
Contact: Rob Marsh Email: r.marsh@we-ef.com

Location: Exterior terrace lighting

Cat. Reference: **132-0526**

Description: Emergency wall light

Dimensions: 222mm Length

220mm Height 220mm Width

Accessories: -

Control Gear: Integral driver / DALI dimming

Colour: Custom RAL 1035 Peal Beige – Client to confirm RAL colour prior to ordering

CDM/H&S:

Notes: Architectural luminaire to be used as maintained emergency fitting with integral

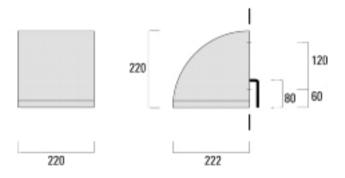
3-hour emergency DALI battery pack to link up to the Lutron system

Circuit Wattage: 14W Voltage: 220-240V

Beam Angle: Asymmetric side throw beam

Colour Kelvin: 3000K
CRI (Ra): 80
Luminous Flux: 1344 lm





Project: Stephenson House – Exterior Lighting

Reference: 0164 – SC2

LUMINAIRE REF: EM7 – UPDATED 05.03.21

Manufacturer: We-ef

Tel: Office: 016 1518 2900 Mobile: 079 0425 5457
Contact: Rob Marsh Email: r.marsh@we-ef.com

Location: Exterior terrace lighting

Cat. Reference: **132-0528**

Description: Emergency wall light

Dimensions: 222mm Length

220mm Height 220mm Width

Accessories: -

Control Gear: Integral driver / DALI dimming

Colour: Custom RAL 1035 Peal Beige – Client to confirm RAL colour prior to ordering

CDM/H&S:

Notes: Architectural luminaire to be used as maintained emergency fitting with integral

3-hour emergency DALI battery pack to link up to the Lutron system

Integral gear to be used which is compatible with the Lutron system. Gear has been

reviewed by We-ef and a suitable alternative driver has been determined.

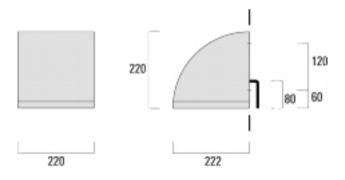
Circuit Wattage: 14W

Voltage: 220-240V

Beam Angle: Rectangular forward throw beam

Colour Kelvin: 3000K
CRI (Ra): 80
Luminous Flux: 1210 lm





Project: Stephenson House – Exterior Lighting

Reference: 0164 – SC2

LUMINAIRE REF: EM12 - UPDATED 17.07.20

Manufacturer: We-ef

Tel: Office: 016 1518 2900 Mobile: 079 0425 5457 Contact: Rob Marsh Email: r.marsh@we-ef.com

Location: Exterior terrace level 4

Cat. Reference: **132-0536**

Description: Emergency wall light

Dimensions: 222mm Length

220mm Height 220mm Width

Accessories: -

Control Gear: Integral driver / DALI dimming

Colour: Custom RAL 1035 Peal Beige – Client to confirm RAL colour prior to ordering

CDM/H&S:

Notes: Architectural luminaire to be used as maintained emergency fitting with integral

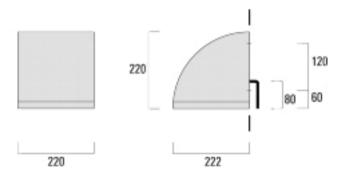
3-hour emergency DALI battery pack to link up to the Lutron system

Circuit Wattage: 28W Voltage: 220-240V

Beam Angle: Asymmetric side throw beam

Colour Kelvin: 3000K
CRI (Ra): 80
Luminous Flux: 2340 lm





Project: Stephenson House – Exterior Lighting

Reference: 0164 – SC2

LUMINAIRE REF: EM13 - UPDATED 17.07.20

Manufacturer: We-ef

Tel: Office: 016 1518 2900 Mobile: 079 0425 5457
Contact: Rob Marsh Email: r.marsh@we-ef.com

Location: Exterior terrace level 4

Cat. Reference: **132-0540**

Description: Emergency wall light

Dimensions: 222mm Length

220mm Height 220mm Width

Accessories: -

Control Gear: Integral driver / DALI dimming

Colour: Custom RAL 1035 Peal Beige – Client to confirm RAL colour prior to ordering

CDM/H&S:

Notes: Architectural luminaire to be used as maintained emergency fitting with integral

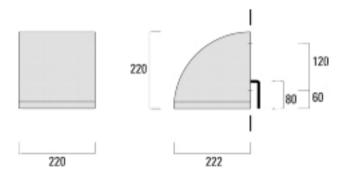
3-hour emergency DALI battery pack to link up to the Lutron system

Circuit Wattage: 28W Voltage: 220-240V

Beam Angle: Asymmetric forward throw beam

Colour Kelvin: 3000K
CRI (Ra): 80
Luminous Flux: 2230 lm





Project: Stephenson House – Exterior Lighting

Reference: 0164 – SC2

LUMINAIRE REF: EM14 - UPDATED 17.07.20

Manufacturer: We-ef

Tel: Office: 016 1518 2900 Mobile: 079 0425 5457
Contact: Rob Marsh Email: r.marsh@we-ef.com

Location: Exterior terrace level 4

Cat. Reference: **132-0538**

Description: Emergency wall light

Dimensions: 222mm Length

220mm Height 220mm Width

Accessories: -

Control Gear: Integral driver / DALI dimming

Colour: Custom RAL 1035 Peal Beige – Client to confirm RAL colour prior to ordering

CDM/H&S:

Notes: Architectural luminaire to be used as maintained emergency fitting with integral

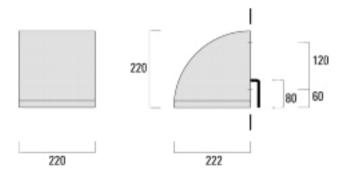
3-hour emergency DALI battery pack to link up to the Lutron system

Circuit Wattage: 28W Voltage: 220-240V

Beam Angle: Rectangular side throw beam

Colour Kelvin: 3000K
CRI (Ra): 80
Luminous Flux: 2107 lm





Project: Stephenson House – Exterior Lighting

Reference: 0164 – SC2

LUMINAIRE REF: L3 – UPDATED 17.07.20

Manufacturer: LED Linear (supplied by Architectural FX)

Tel: Office: 013 4429 1536 Mobile: 075 8418 8272

Contact: James Hamilton Email: jh@architecturalfx.co.uk

Location: Terraces - Benches

Cat. Reference: VARIOLED FLEX VENUS TV W825 IP67

Description: Flexible linear LED / 3000K / IP6

Dimensions: Various length

15 mm height 16 mm width

Dimensions exclude mounting

channel

Accessories: Mounting clips

Control Gear: Remote driver / DALI dimming

Colour: White

CDM/H&S:

Notes: **Delivered colour temperature 3000K**;

Electrical contractor to measure lengths onsite prior to ordering Electrical contractor to measure lengths onsite prior to ordering Maximum Driver Distance Based on 1.5mm CSA Cable: 20m Maximum Driver Distance Based on 2.5mm CSA Cable: 40m

Driver Dimensions: 153mm x 50mm x 23mm $\,$

Power Supply Dimensions: 228mm x 68mm x 39mm

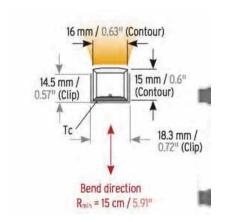
Please contact manufacturer for further wiring information if required

 $\ \, \text{Drivers and power supplies to be housed locally in bench void, suitable IP rated box\ to\ be}$

used.

Circuit Wattage: 6W/m
Voltage: 24V
Beam Angle: N/A
Colour Kelvin: 3000K
Luminous Flux: 330lm/m
CRI (Ra) 80





Project: Stephenson House – Exterior Lighting

Reference: 0164 – SC2

LUMINAIRE REF: L8 – UPDATED 17.07.20

Manufacturer: LED Linear (supplied by Architectural FX)

Tel: Office: 013 4429 1536 Mobile: 075 8418 8272

Contact: James Hamilton Email: jh@architecturalfx.co.uk

Location: Lantern Frame of Light

Cat. Reference: VARIOLED FLEX PHOBOS TC W930 TV IP67

Description: Flexible linear LED / 3000K / IP67

Dimensions: Various Length (to be measured prior to ordering)

15 mm height 16 mm width

Dimensions do not include

mounting channel

Accessories: Custom aluminium channel RAL coloured

Control Gear: Remote driver – DALI dimming

Colour: RAL coloured channel to match stonework – RAL 1035 Pearl Beige CDM/H&S: Suitable safety precautions to be taken when working at heights

Notes: **Delivered colour temperature 3000K**;

Electrical contractor to measure lengths onsite prior to ordering Maximum Driver Distance Based on 1.5mm CSA Cable: 18m Maximum Driver Distance Based on 2.5mm CSA Cable: 30m

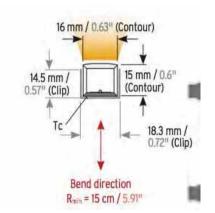
Driver Dimensions: 153mm x 50mm x 23mm Power Supply Dimensions: 228mm x 68mm x 39mm

Maximum Series Length: 3.964m

Please contact manufacturer for further wiring information if required Drivers and power supplies to be house internally within office ceiling void

Circuit Wattage: 10W/m
Voltage: 24V
Beam Angle: N/A
Colour Kelvin: 3000K
Luminous Flux: 530 lm/m
CRI (Ra) 90





the language of light **DETAILED LUMINAIRE SCHEDULE**

Project: Stephenson House - Exterior Lighting

Reference: 0164 - SC2

LUMINAIRE REF: L16E - ADDED 05.03.21

Manufacturer: LED Linear (supplied by Architectural FX)

Tel: Office: 013 4429 1536 Mobile: 075 8418 8272

Email: jh@architecturalfx.co.uk Contact: James Hamilton

Location: Level 7 Terrace

Cat. Reference: **VARIOLED FLEX VENUS W825 XX TV IP67**

Flexible linear LED / 3000K delivered colour temperature / IP67 / Fitting to be used for Description:

emergency lighting

Dimensions: Various Length (to be measured prior to ordering)

> 20.7 mm Height (including bracket) 18.2 mm Width (including bracket)

TV Mounting Profile 10000339 Accessories:

L-Shaped Bracket

Emergency battery pack for non-maintained purposes Control Gear:

Colour: N/A

CDM/H&S: Suitable safety precautions to be taken when working at heights

Delivered colour temperature 3000K; Notes:

Fitting to be used as a non-maintained 3 hour emergency light at 100% output

Electrical contractor to measure lengths onsite prior to ordering

Linear aluminium mounting profile can be supplied in 2m and 4m lengths Emergency 3 hour battery pack dimensions: 385mm x 395mm x 105mm

Contractor to use suitable fire rated cable Emergency fitting to be tested via a key switch

LED indicator to be located adjacent to luminaire, final location and fixing method TBC

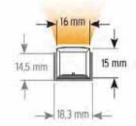
Circuit Wattage: 6W/m Voltage: 24V Beam Angle: N/A

3000K delivered Colour Kelvin:

CRI (Ra) 80

Luminous Flux: 380 lm/m







Project: Stephenson House – Exterior Lighting

Reference: 0164 – SC2

LUMINAIRE REF: LIN1 – UPDATED 17.07.20

Manufacturer: LED Linear (supplied by Architectural FX)

Tel: Office: 013 4429 1536 Mobile: 075 8418 8272

Contact: James Hamilton Email: jh@architecturalfx.co.uk

Location: Hampstead Road Facade

Cat. Reference: KALYPSO TC HD36 W830 / 645MM 10° IP67

Description: Linear narrow beam wall washer 10° / 3000K / IP67

Dimensions: 645mm length 72mm height

25.5mm width

Accessories: Custom aluminium extrusion with cowl and adjustable bracket

Control Gear: Remote driver – DALI dimmable

Colour: Custom aluminium extrusion and brackets to be RAL coloured to match facade pier - RAL 9001

Cream - MBA to confirm finish prior to final order

CDM/H&S: Suitable safety precautions to be taken when working at heights

Notes: It is proposed the drivers are located accessibly in the ceiling of the office floorplate.

Multiple fittings can be located on one driver but please ensure only same fitting type

(i.e. same length fittings) are on the same driver to ensure maximum flexibility for

dimming. Refer to manufacturers wiring diagram.

Maximum Driver Distance Based on 1.5mm CSA Cable: 20m
Maximum Driver Distance Based on 2.5mm CSA Cable: 35m

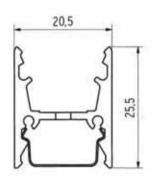
Driver Dimensions: 153mm x 50mm x 23mm

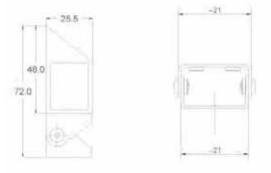
Power Supply Dimensions: 228mm x 68mm x 39mm

Please contact manufacturer for further wiring information Up to 4 fittings to be located on one power supply and driver

Circuit Wattage: 36W/M
Voltage: 24V
Beam Angle: 10°
Colour Kelvin: 3000K
Luminous Flux: 3050lm/m









Project: Stephenson House – Exterior Lighting

Reference: 0164 – SC2

LUMINAIRE REF: LIN2 – UPDATED 17.07.20

Manufacturer: LED Linear (supplied by Architectural FX)

Tel: Office: 013 4429 1536 Mobile: 075 8418 8272

Contact: James Hamilton Email: jh@architecturalfx.co.uk

Location: Hampstead Road Facade

Cat. Reference: KALYPSO TC HD36 W830 / 393MM 10° IP67

Description: Linear narrow beam wall washer 10° /3000K / IP67

Dimensions: 393mm length
72mm height

72mm height 25.5mm width

Accessories: Custom aluminium extrusion with cowl and adjustable bracket

Control Gear: Remote driver – DALI dimmable

Colour: Custom aluminium extrusion and brackets to be RAL coloured to match facade pier - RAL 9001

Cream - MBA to confirm finish prior to final order

CDM/H&S: Suitable safety precautions to be taken when working at heights

Notes: It is proposed the drivers are located accessibly in the ceiling of the office floorplate.

Multiple fittings can be located on one driver but please ensure only same fitting type (i.e. same length fittings) are on the same driver to ensure maximum flexibility for

dimming. Refer to manufacturers wiring diagram.

Maximum Driver Distance Based on 1.5mm CSA Cable: 20m
Maximum Driver Distance Based on 2.5mm CSA Cable: 35m

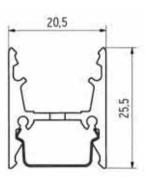
Driver Dimensions: 153mm x 50mm x 23mm

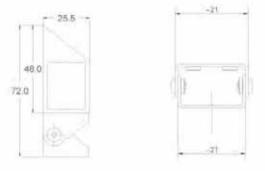
Power Supply Dimensions: 228mm x 68mm x 39mm

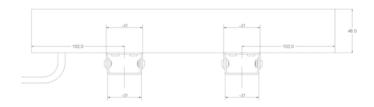
Please contact manufacturer for further wiring information Up to 4 fittings to be located on one power supply and driver

Circuit Wattage: 36W/M
Voltage: 24V
Beam Angle: 10°
Colour Kelvin: 3000K
Luminous Flux: 3050lm/m









Project: Stephenson House – Exterior Lighting

Reference: 0164 – SC2

LUMINAIRE REF: LIN3 – UPDATED 17.07.20

Manufacturer: LED Linear (supplied by Architectural FX)

Tel: Office: 013 4429 1536 Mobile: 075 8418 8272

Contact: James Hamilton Email: jh@architecturalfx.co.uk

Location: Hampstead Road Facade

Cat. Reference: KALYPSO TC HD35 W830 / 1270MM 10° IP67

Description: Linear narrow beam wall washer 10° / 3000K / IP67

Dimensions: 1270mm length

72mm height 25.5mm width

Accessories: Custom aluminium extrusion with cowl and adjustable bracket

Control Gear: Remote driver – DALI dimmable

Colour: Custom aluminium extrusion and brackets to be RAL coloured to match facade pier - RAL 9001

Cream - MBA to confirm finish prior to final order

CDM/H&S: Suitable safety precautions to be taken when working at heights

Notes: It is proposed the drivers are located accessibly in the ceiling of the office floorplate.

Multiple fittings can be located on one driver but please ensure only same fitting type (i.e. same length fittings) are on the same driver to ensure maximum flexibility for

dimming. Refer to manufacturers wiring diagram.

Maximum Driver Distance Based on 1.5mm CSA Cable: 12m
Maximum Driver Distance Based on 2.5mm CSA Cable: 20m

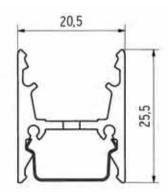
Driver Dimensions: 153mm x 50mm x 23mm

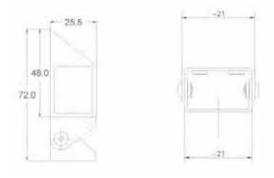
Power Supply Dimensions: 228mm x 68mm x 39mm

Please contact manufacturer for further wiring information

Circuit Wattage: 36W/M
Voltage: 24V
Beam Angle: 10°
Colour Kelvin: 3000K
Luminous Flux: 3050lm/m









Project: Stephenson House – Exterior Lighting

Reference: 0164 – SC2

LUMINAIRE REF: LIN4 - UPDATED 30.07.21

Manufacturer: Light Graphix
Tel: Office: 01322 527 629

Contact: Mo Arrahman Email: mo@lightgraphix.biz

Location: Drummond Street Facade

Cat. Reference: LD38C/500/LW27/50/OB/RAL/ABM/GLF/DALI/650

Description: Surface mounted linear LED with lensed optics, cowl and adjustable mounting bracket

Dimensions: 650mm length

63mm height 40mm width

Accessories: Adjustable mounting bracket
Control Gear: Remote driver - DALI dimming

Colour: Fitting and brackets to be RAL coloured 1035 Pearl Beige CDM/H&S: Suitable safety precautions to be taken when working at heights

Notes: It is proposed the drivers are located accessibly in the ceiling of the office floorplate.

Multiple fittings can be located on one driver but please ensure only same fitting type (i.e. same length fittings) are on the same driver to ensure maximum flexibility for

dimming.

Driver Dimensions based on 4 output DALI driver:388mm(L)x42mm(H)x30mm(W) Maximum Driver Distance based on 4 output DALI driver using 8 core cable: 30m

Upto 4 fittings can be located on a 4 output DALI driver

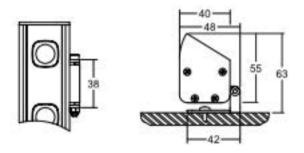
Please contact manufacturer prior to electrical installation for detailed advice on cabling

Circuit Wattage: 22.1W Voltage: 3.2V

Beam Angle: 12°x36 ° Oval beam

Colour Kelvin: 2700K Luminous Flux: 2960lm/m





Project: Stephenson House – Exterior Lighting

Reference: 0164 – SC2

LUMINAIRE REF: LIN5 - UPDATED 30.07.21

Manufacturer: Light Graphix

Tel: Office: 01322 527 629

Contact: Mo Arrahman Email: mo@lightgraphix.biz

Location: Drummond Street Facade

Cat. Reference: LD38C/500/LW27/50/OB+EOB/RAL/ABM/GLF/DALI/400

Description: Surface mounted linear LED with lensed optics, cowl and adjustable mounting bracket

Dimensions: 400mm length

63mm height 40mm width

Accessories: Adjustable mounting bracket
Control Gear: Remote driver - DALI dimming

Colour: Fitting and brackets to be RAL coloured 1035 Pearl Beige CDM/H&S: Suitable safety precautions to be taken when working at heights

Notes: It is proposed the drivers are located accessibly in the ceiling of the office floorplate.

Multiple fittings can be located on one driver but please ensure only same fitting type (i.e. same length fittings) are on the same driver to ensure maximum flexibility for

dimming.

Fitting to be made up of oval beam on left hand side and extra oval beam at right hand

side (if fitting is facing the façade) as per the Pearl Beige mock-up sample.

Driver Dimensions based on 4 output DALI driver:388mm(L)x42mm(H)x30mm(W) Maximum Driver Distance based on 4 output DALI driver using 8 core cable: 30m

Upto 4 fittings can be located on a 4 output DALI driver

Please contact manufacturer prior to electrical installation for detailed advice on cabling

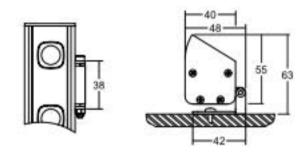
Circuit Wattage: 13.6W Voltage: 3.2V

Beam Angle: 12°x36° Oval beam + 15°x60° Extra

Oval beam

Colour Kelvin: 2700K Luminous Flux: 2960lm/m





Project: Stephenson House – Exterior Lighting

Reference: 0164 – SC2

LUMINAIRE REF: LIN6 - UPDATED 30.07.21

Manufacturer: Light Graphix
Tel: Office: 01322 527 629

Contact: Mo Arrahman Email: mo@lightgraphix.biz

Location: Drummond Street Facade

Cat. Reference: LD38C/500/LW27/50/OB/RAL/ABM/GLF/DALI/1300

Description: Surface mounted linear LED with lensed optics, cowl and adjustable mounting bracket

Dimensions: 1300mm length

63mm height 40mm width

Accessories: Adjustable mounting bracket
Control Gear: Remote driver - DALI dimming

Colour: Fitting and brackets to be RAL coloured 1035 Pearl Beige
CDM/H&S: Suitable safety precautions to be taken when working at heights

Notes: It is proposed the drivers are located accessibly in the ceiling of the office floorplate.

Multiple fittings can be located on one driver but please ensure only same fitting type (i.e. same length fittings) are on the same driver to ensure maximum flexibility for

dimming.

Driver Dimensions based on 4 output DALI driver:388mm(L)x42mm(H)x30mm(W)
Maximum Driver Distance based on 4 output DALI driver using 8 core cable: 30m

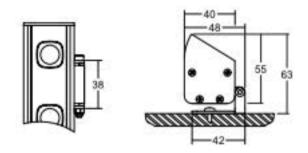
Please contact manufacturer prior to electrical installation for detailed advice on cabling

Circuit Wattage: 44.2W Voltage: 3.2V

Beam Angle: 12°x36° Oval beam

Colour Kelvin: 2700K Luminous Flux: 2960lm/m





Project: Stephenson House – Exterior Lighting

Reference: 0164 – SC2

LUMINAIRE REF: SP3 - UPDATED 21.05.21

Manufacturer: Light Graphix

Tel: Office: 01322 527 629

Contact: Mo Arrahman Email: mo@lightgraphix.biz

Location: Exterior terrace gardens

Cat. Reference: LD51-700 / LW30 / MB / GS / CO / BLACK
Description: Miniature spotlight/ 31° / 3000K / IP67

Dimensions: 64 mm length

35 mm height 35 mm width

Dimensions exclude ground spike

Accessories: CO – Cowl, GS – Ground Spike

Control Gear: Remote driver / DALI
Colour: Black anodised

CDM/H&S:

Notes: Multiple fittings (13 no. max) to be powered by one driver.

Driver Dimensions: 210mm(L)x33.5mm(H)x40.4mm(W)

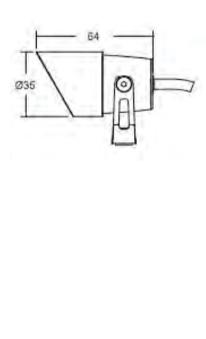
Maximum Driver Distance: 50m

Driver to be housed in IP rated box if located in exterior location, please refer to drawings

for information on driver locations

Circuit Wattage: 2.4W
Voltage: 700mA
Beam Angle: 31°
Colour Kelvin: 3000K
Luminous Flux: 174 lm
CRI (Ra) 93





Project: Stephenson House – Exterior Lighting

Reference: 0164 – SC2

LUMINAIRE REF: SP4 - UPDATED 21.05.21

Manufacturer: Light Graphix

Tel: Office: 01322 527 629

Contact: Mo Arrahman Email: mo@lightgraphix.biz

Location: Exterior terrace gardens

Cat. Reference: LD51-500 / LW30 / WB / GS / CO / BLACK
Description: Miniature spotlight/ 48° / 3000 K / IP67

Dimensions: 64 mm length

35 mm height 35 mm width

Dimensions exclude ground spike

Accessories: CO – Cowl, GS – Ground Spike

Control Gear: Remote driver / DALI
Colour: Black anodised

CDM/H&S:

Notes: Multiple fittings (14 no. max) to be powered by one driver.

Driver Dimensions:210mm(L)x33.5mm(H)x40.4mm(W)

Maximum Driver Distance: 50m

Driver to be housed in IP rated box if located in exterior location, please refer to drawings

for information on driver locations

Circuit Wattage: 2.2W
Voltage: 500mA
Beam Angle: 48°
Colour Kelvin: 3000K
Luminous Flux: 130 lm
CRI (Ra) 93



Project: Stephenson House – Exterior Lighting

Reference: 0164 – SC2

LUMINAIRE REF: SP6 - UPDATED 21.05.21

Manufacturer: Light Graphix

Tel: Office: 01322 527 629

Contact: Mo Arrahman Email: mo@lightgraphix.biz

Location: Exterior terrace gardens

Cat. Reference: LD51-700 / LW30 / WB / GS / CO / BLACK Description: Miniature spotlight/ 48° / 3000 K / IP67

Dimensions: 64 mm length

35 mm height 35 mm width

Dimensions exclude ground spike

Accessories: CO – Cowl, GS – Ground Spike

Control Gear: Remote driver / DALI
Colour: Black anodised

CDM/H&S:

Notes: Multiple fittings (13 no. max) to be powered by one driver.

Driver Dimensions:210mm(L)x33.5mm(H)x40.4mm(W)

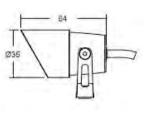
Maximum Driver Distance: 50m

Driver to be housed in IP rated box if located in exterior location, please refer to drawings

for information on driver locations

Circuit Wattage: 2.4W
Voltage: 700mA
Beam Angle: 48°
Colour Kelvin: 3000K
Luminous Flux: 174 lm
CRI (Ra) 93





Project: Stephenson House – Exterior Lighting

Reference: 0164 – SC2

LUMINAIRE REF: SP7 - UPDATED 21.05.21

Manufacturer: Light Graphix

Tel: Office: 01322 527 629

Contact: Mo Arrahman Email: mo@lightgraphix.biz

Location: Exterior terrace gardens

Cat. Reference: LD10238-500 / LW30 / WB / GS / BLACK

Description: Spotlight/ 34° / 3000K / IP67

Dimensions: 119 mm length

60 mm height 60 mm width

Dimensions exclude ground spike

Accessories: **GS – Ground Spike**Control Gear: Remote driver / DALI
Colour: Black anodised

CDM/H&S:

Notes: Multiple fittings (4 no. max) to be powered by one driver.

Driver Dimensions:210mm(L)x33.5mm(H)x40.4mm(W)

Maximum Driver Distance: 50m

Driver to be housed in IP rated box if located in exterior location, please refer to drawings

for information on driver locations

Circuit Wattage: 7W

Voltage: 500mA

Beam Angle: 34°

Colour Kelvin: 3000K

Luminous Flux: 474 lm

CRI (Ra) 85



Project: Stephenson House – Exterior Lighting

Reference: 0164 – SC2

LUMINAIRE REF: WL4E - UPDATED 21.05.21

Manufacturer: Bega (supplied by Fagerhult)

Tel: Office: 020 7403 4123 Mobile: 075 8550 9782

Contact: Sam Ashdown Email: sam.ashdown@fagerhult.co.uk

Location: Level 7 Terrace
Cat. Reference: 24211K3 (RAL)

Description: Recessed wall light / 3000K / IP65

Dimensions: 190 mm Length
190 mm Width

105 mm Depth (Excluding emergency battery pack)

175mm x 175mm Required recessed opening

Accessories: 3-hour emergency battery pack

Control Gear: Integral DALI dimming for architectural use,

remote 3hour emergency battery pack in IP rated box

Colour: RAL coloured to Pearl Beige RAL 1035

CDM/H&S: -

Notes: Architectural luminaire to be used as a maintained emergency fitting and to be supplied

with remote 3 hour emergency battery pack. Level 7 emergency lighting to be tested via

a key switch, GLP to locate key switch.

Emergency battery pack to be within 1m of luminaire, it is suggested battery pack is located within IP rated box and fits within parapet wall void, Permasteelisa to confirm. Architectural DALI driver to form part of the Lutron control system, to allow the fitting to

be used at night as terrace lighting as well as in an emergency situation

Size of IP rated box for emergency battery pack: 190mm (L) x 140mm (W) x 70mm (H)

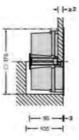
Emergency LED indicator diode to be integral to luminaire

Circuit Wattage: 6.9 W
Voltage: 220-240 V
Beam Angle: N/A
Colour Kelvin: 3000K
Luminous Flux: 566 lm
CRI (Ra) 80









Project: Stephenson House – Exterior Lighting

Reference: 0164 – SC2

LUMINAIRE REF: U2

Manufacturer: Meyer supplied by Commercial Lighting

Tel: Office: 020 8442 0880 Mobile: 07971663060

Contact: Howard Lawrence Email: howard@commercial-lighting.co.uk

Location: Pocket Garden Balconies
Cat. Reference: **UPLIGHT 220 - 8 663 016 148**

Description: Adjustable inground uplight / 30° / 3000K / IP68
Dimensions: 152mm Depth
220mm Diameter

Recess cut-out: 200mm Diameter

Accessories: -

Control Gear: Integral driver / DALI dimming

Colour: Black housing with stainless steel bezel

CDM/H&S: -

Notes:

Circuit Wattage: 19W
Voltage: 230V
Beam Angle: 30°
Colour Kelvin: 3000K
Luminous Flux: 1640 lm
CRI (Ra) 80











studio 29

47 Landford Road London SW15 1AQ UK

+44 (0)20 8780 9006 info@studio29lighting.com

studio29lighting.com

