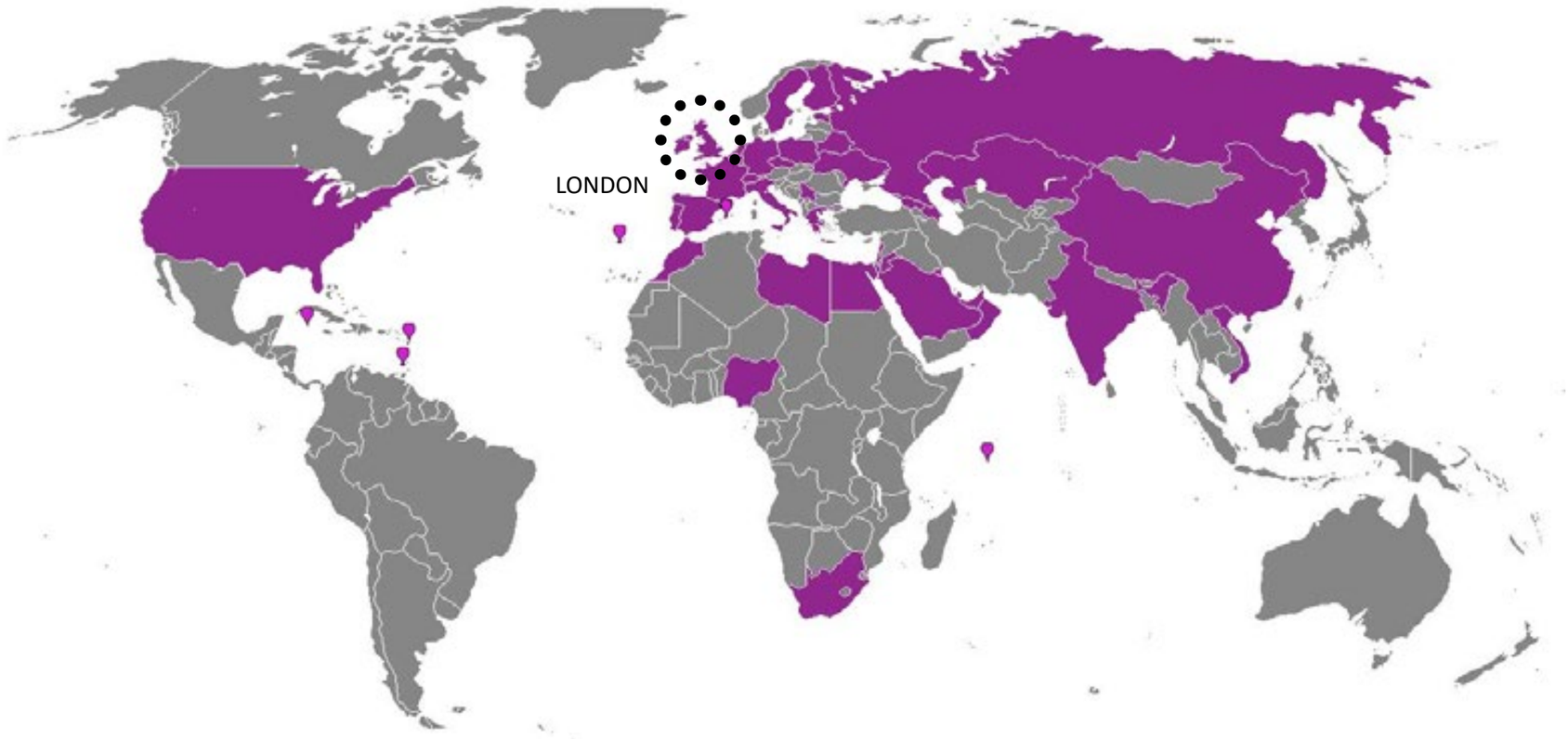
ELEKTRA
lighting design consultants

# NYX Holborn Hotel

28th September 2020

Lighting Report

Revision -

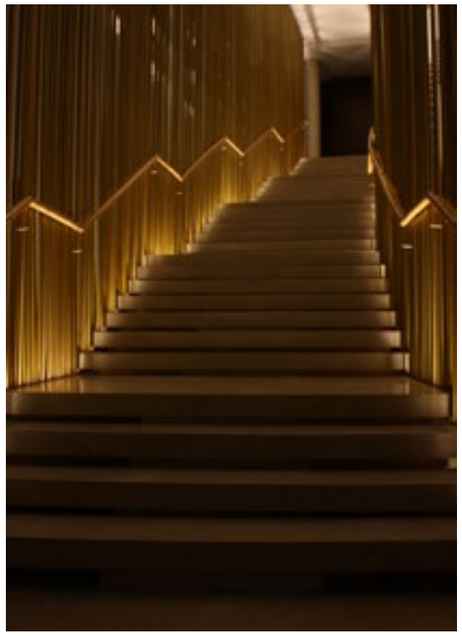


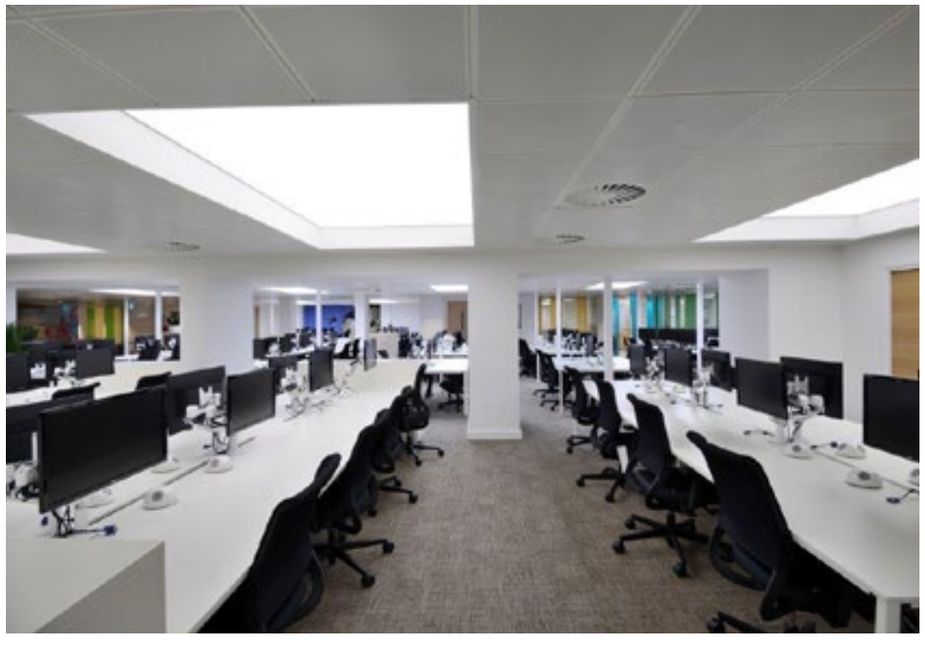

Elektra is an independent lighting design consultancy with a continuous presence in the design industry since its founding in March 2000

We create lighting solutions for all architectural environments, specialising in the hospitality and retail sectors. Our portfolio includes world-leading hotel chains, and long and re-occurring collaboration with these has established Elektra as one of the top lighting consultancies.

Elektra praises individuality and design quality, developing lighting schemes to satisfy client's requirements, compliance with requirements and ensure great lighting design. Our careful attention to detail, knowledge of the construction industries across 4 continents and our creative inspiration ensures success.

You are only as good as your last project. To us, every project is unique and every project deserves the best.







VERSATILE | CONTEMPORARY | INNOVATIVE | FUNCTIONAL | INSPIRATIONAL

# Contents

## Overview

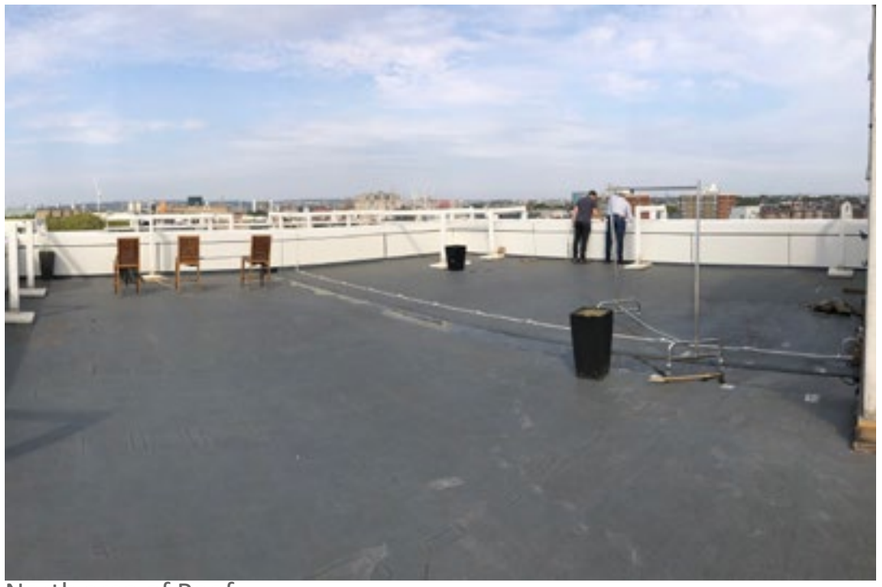
Elektra attended site to assess the current light levels and lit elements present on the roof top in order to evaluate the impact of the proposed roof top bar on the surrounding area.

Light levels were taken not only on the roof top itself but also within the surrounding area.

The hotel stands prominent above most of the surrounding area. The nearest building is to the East, the Unite offices. The only residential properties situated in close proximity are to the North of the Hotel. The roof top stands above the residential block, however any lighting situated close to the perimeter of the roof top would be visible from the flats.

Entrance to Roof Top

South area of Roof



North area of Roof

# Current Roof Top

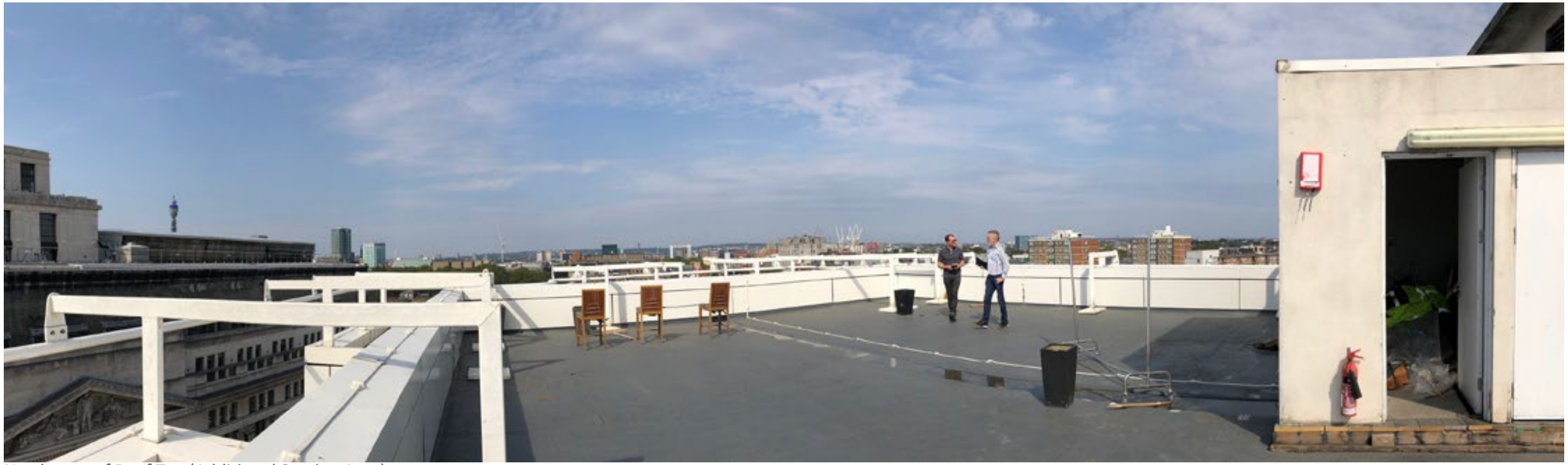
360 Degree Site Photos

East to West panoramic (Proposed Bar Area)

South to North panoramic (Entrance)

# Current Roof Top

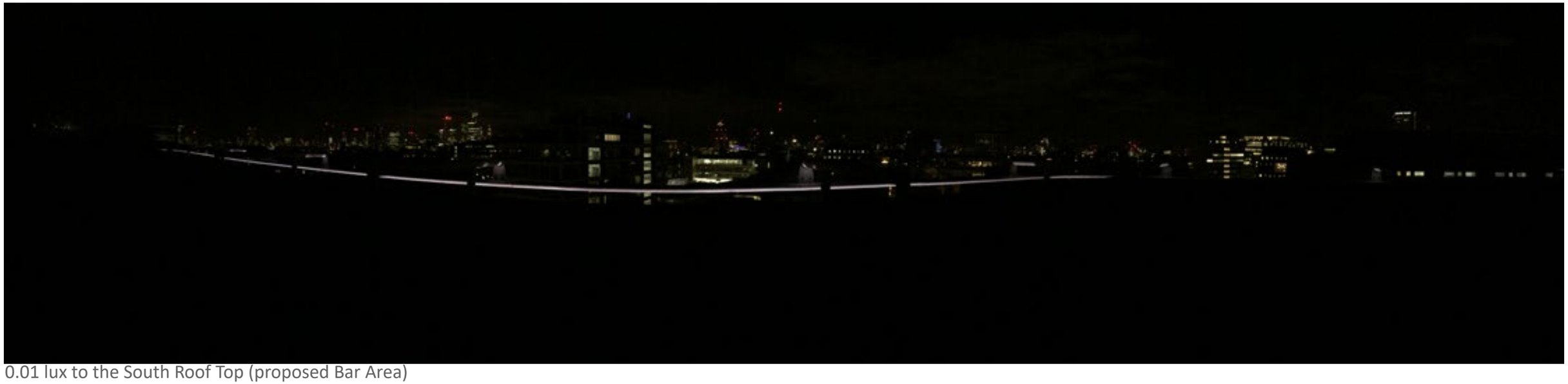
360 Degree Site Photos



North area of Roof Top (Additional Seating Area)

# Current Roof Top

Lux levels currently present on the roof top

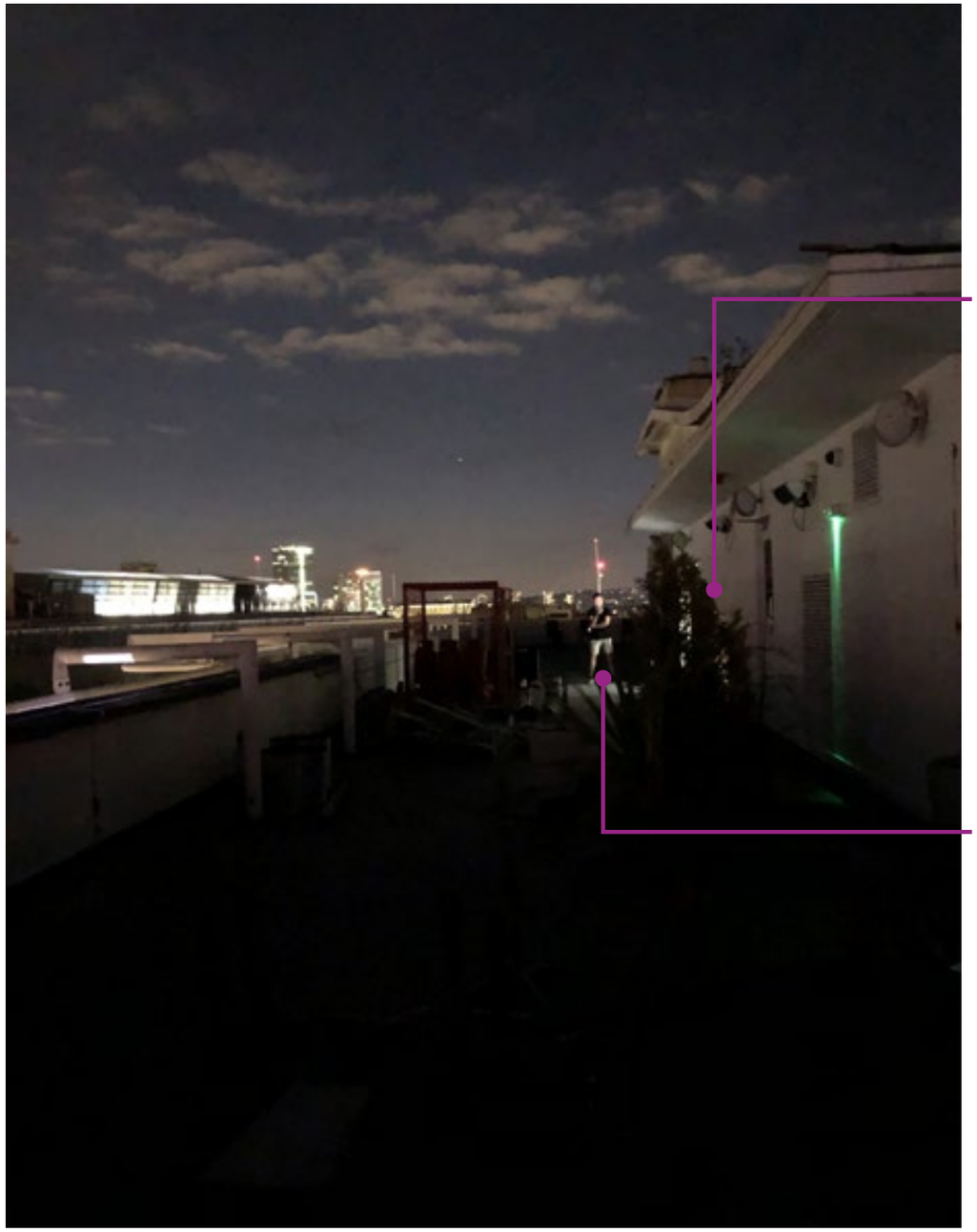


0.01 lux to the South Roof Top (proposed Bar Area)

0.03 lux to the North Roof Top (proposed additional seating area)

# Current Roof Top

Lit elements currently present on roof top



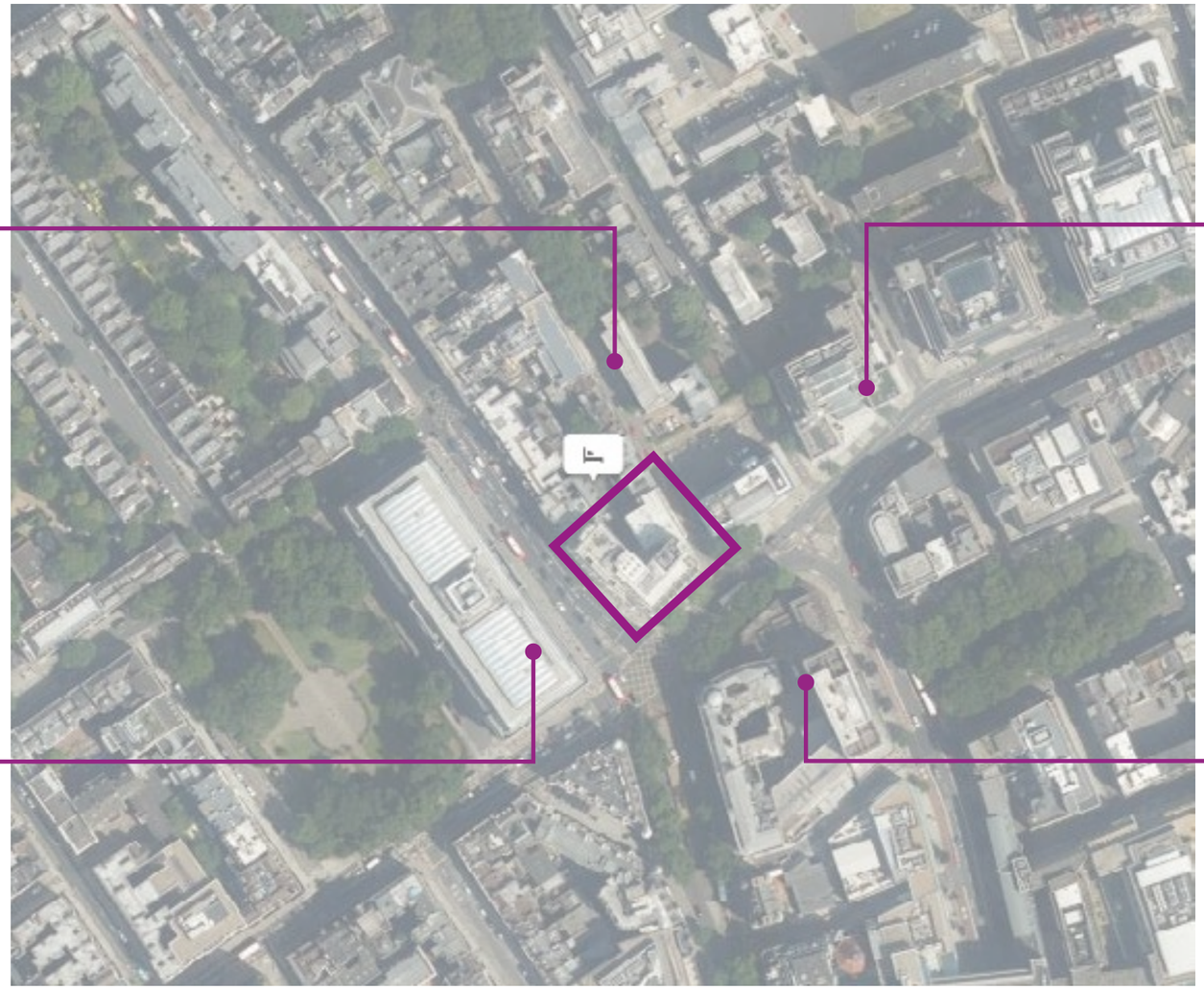
Elektra measured the light levels currently present on the roof top:

- 50 lux to the floor directly inside the entrance.
- 90 lux present to floor within the roof top lobby area.
- 5 lux to floor directly in front of the entrance from the roof top lobby.

# Surrounding Area

Areas viewable from the Roof Top

Mainly residential, eye-line site below roof top level



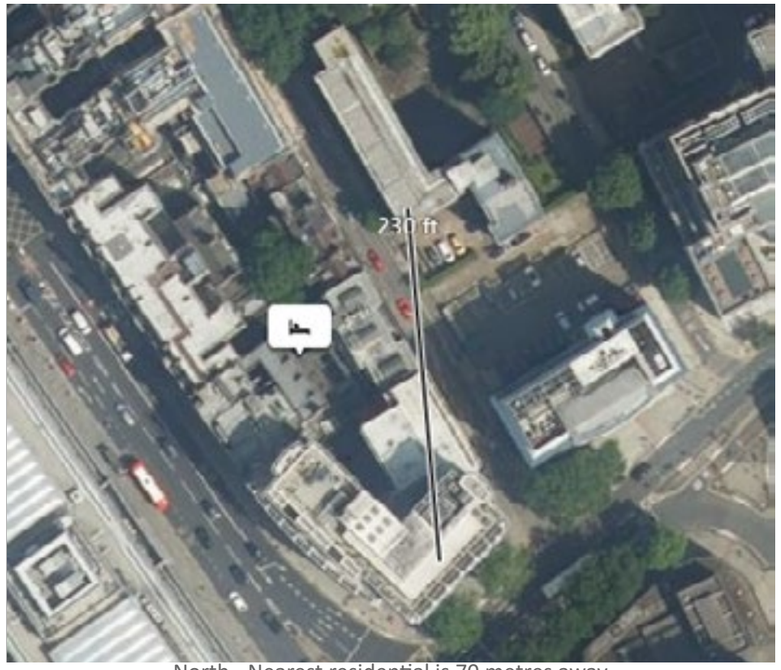
Commercial offices to the East

Commercial offices to the West

Commercial offices and university buildings to the South

# Surrounding Area

Distances to nearest buildings




North - Nearest residential is 70 metres away

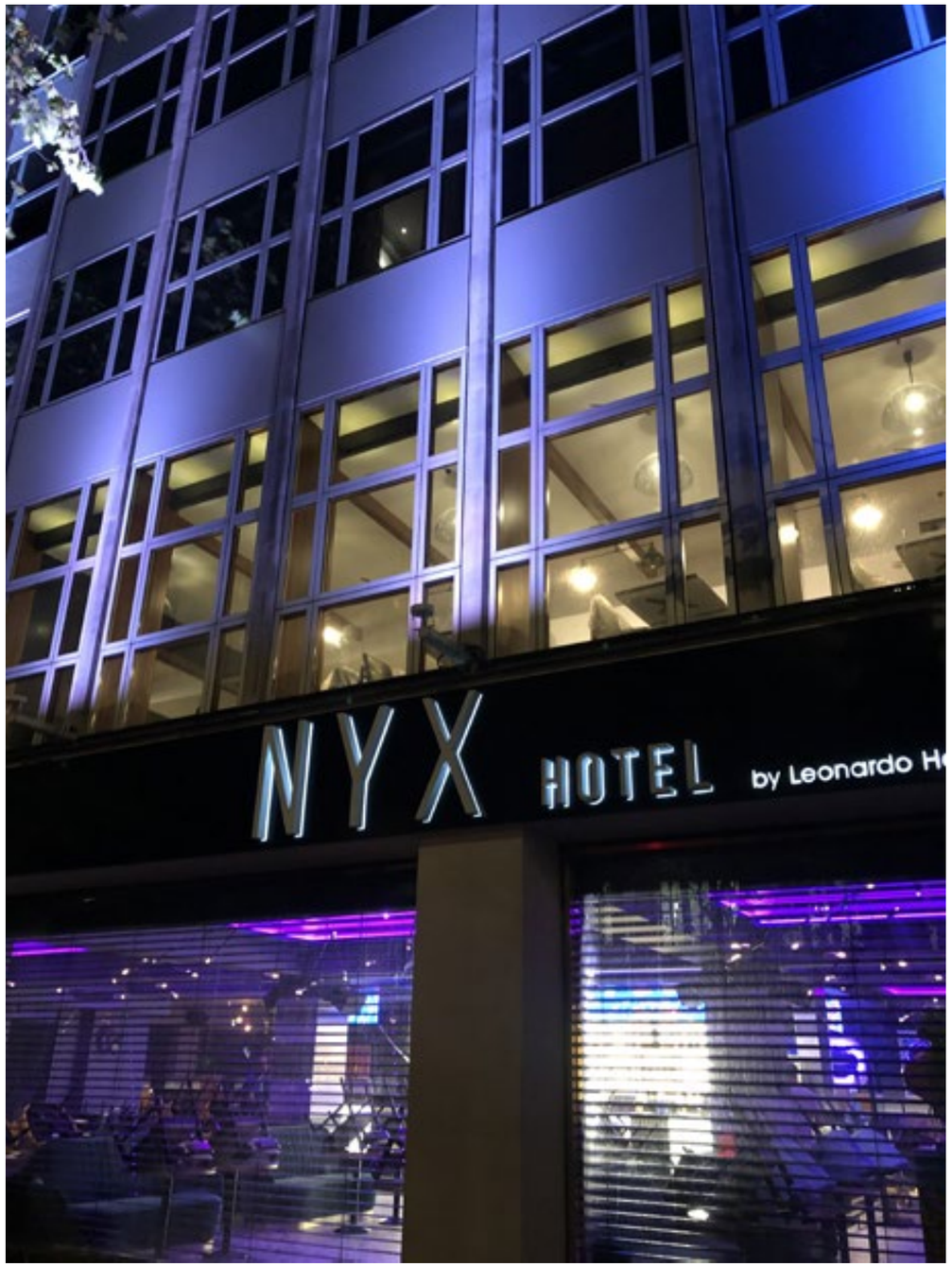

East - Unite offices are 23.5 metres away


West - Victoria House commercial offices are 45.7 metres away


South - Central Saint Martin site is 57.6 metres away

# Surrounding Area

Lux levels present on pathways




Elektra measured the light levels to the pathway directly in front of the hotel.

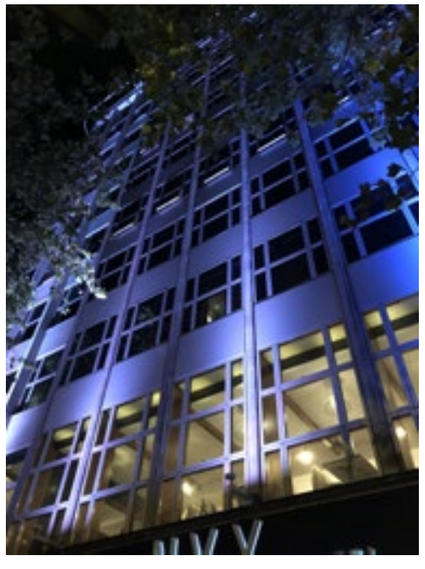
The entrance has a lux level of 4.65 lux.

Towards the areas lit with street lamps, the lux level increases to approximately 17 lux.

# Original Design

Coloured floodlights illuminating the facade





The original facade lighting featured coloured floodlights illuminating the South and West façades.

This facade is visible to all of the surrounding commercial buildings due to it’s height and prominence on the corner.

The current facade lighting is pared back to a single colour, however it is still a prominent feature in the area.

# Original Design

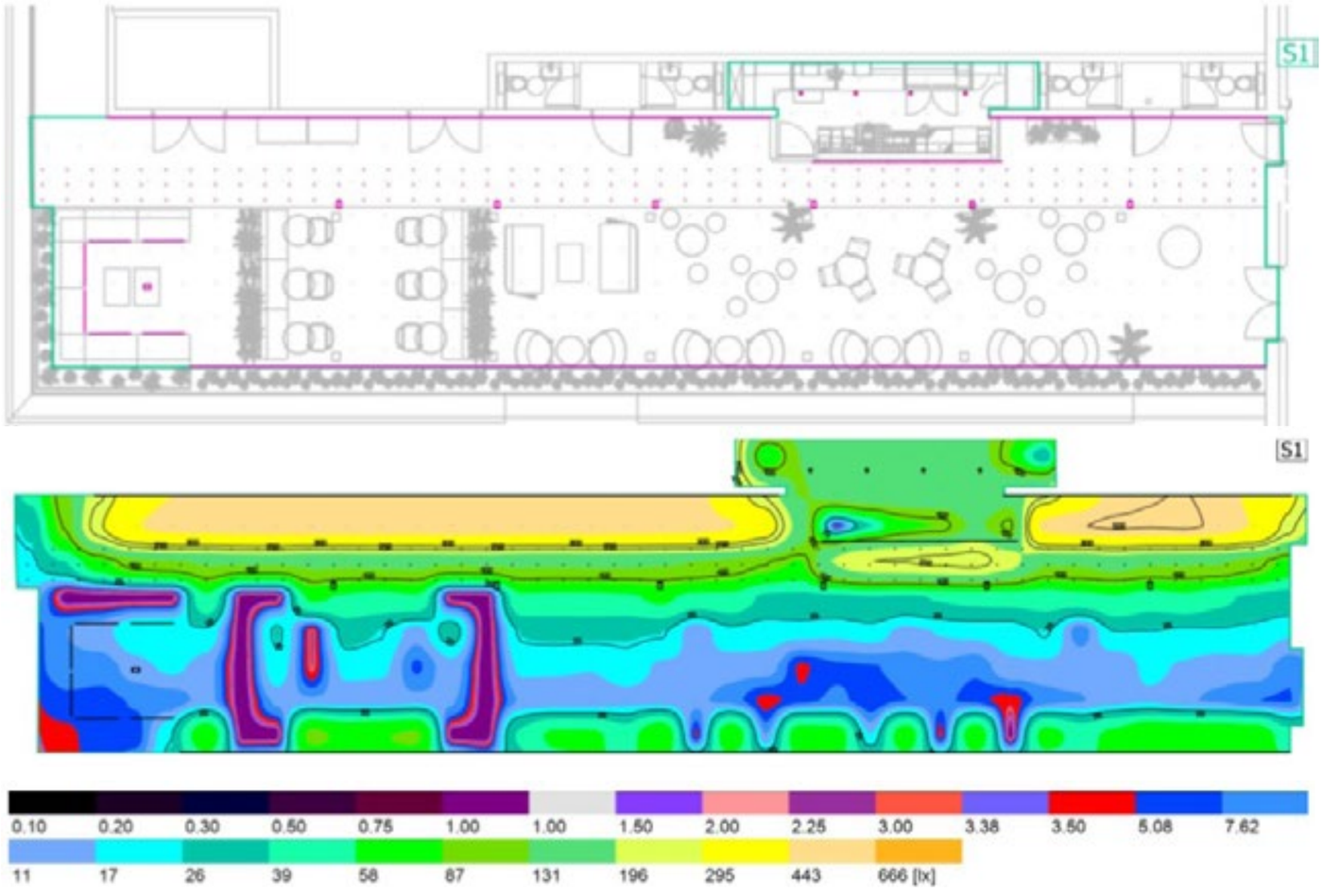
Previous roof top bar installation

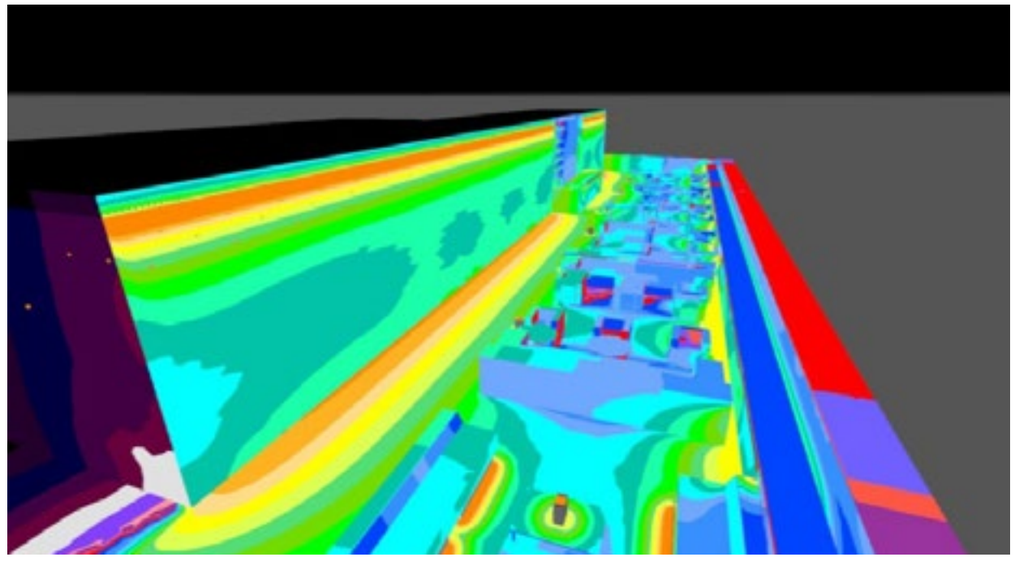

The previous hotel group had a roof top bar installed in the position on the South side. The original installation had a coloured light washing the back wall along with a series of spotlights mounted to the structural framework.

The installation had been removed prior to the site survey therefore Elektra were unable to check the original lux levels.

# Example Design

Precedent study of a Roof Top Bar Design



As there is no proposed scheme available, above is an example of a roof top bar which Elektra have previously installed. The lighting scheme is very typical of this area. The scheme consists of:

- A linear LED wall wash with optics to ensure the light is only projected downwards in a narrow array
- Festoon lighting over the area by the wall
- Lighting underneath the fixed joinery
- Floor / table lanterns to the seating areas

As you can see from above, the only lighting elements visible from the surrounding areas will be the illuminated wall and the festoon lighting. As the linear source is concealed and the light is directed downwards, there would be no glare visible from this fitting. Festoon lighting is very low watt and from the distances previously noted, would not cause glare when viewed directly. The light level provided to the floor and illuminated vertical surfaces is less that the 2500cd allowed for in E4 Environmental Zones.

## Applicable Guidelines

There are no current legislative or voluntary guidelines for light levels within roof top bars.

The following however can be used as a guide:

### Circulation Areas

Within the CIBSE LG6 standards for outdoor areas within hotels, motels and restaurants, it states that the walkways and pathways are to have an illuminance level of 10 lux. Any steps or hazard areas are to be lit to 50 lux.

### Bar Area

Whilst advised lux levels are not available, it is recommended that the light fittings present within the space have a minimum Ra of 80 on the colour rendering index.

### Intrusive Light

The Institute of Lighting Professionals has a publication entitled “Guidance Notes on the Reduction of Obtrusive Light”. Within this document, Holborn would classify as Zone E4 (“Urban”) and the limit of luminaire intensity would be 2,500 cd.
Any proposed scheme would need to be within these levels.

### Fitting Specification

The luminaires must comply with the following British Standards: BS EN 60598 and BS EN 61547.

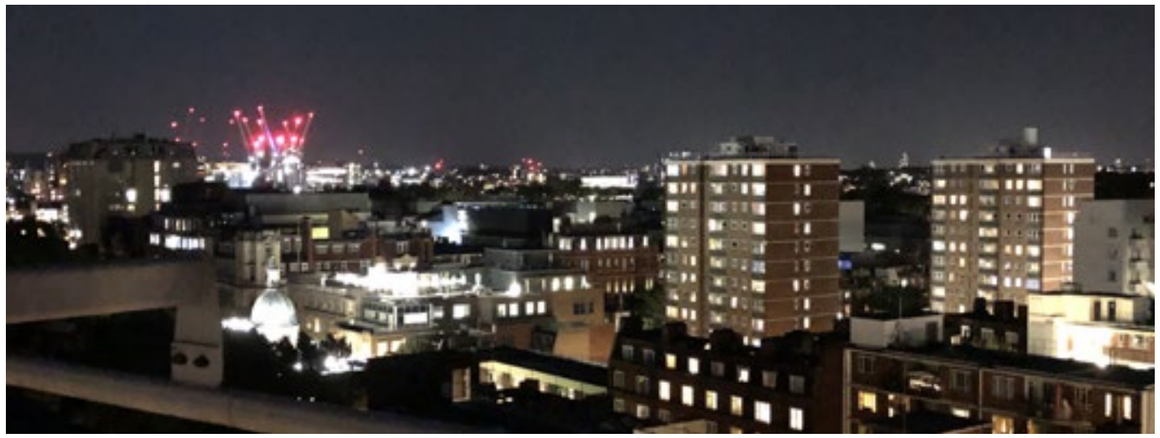
# Conclusion

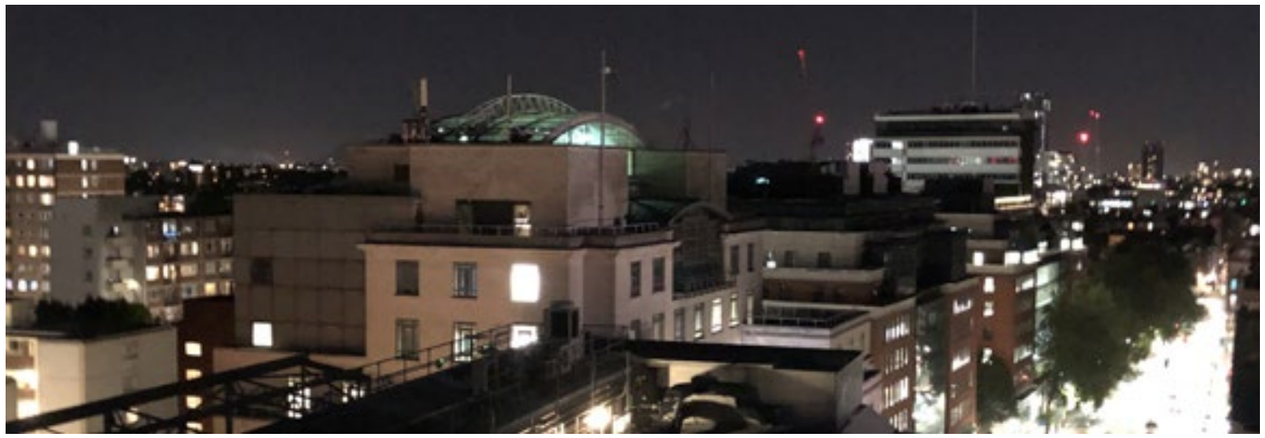
The current roof top does not feature any lighting since the removal of the previous installation, therefore the introduction of any luminaires would be brighter than what is currently featured. That said, as the roof top is not overlooked by any residential neighbouring properties it should be simple enough to ensure that any proposed lighting does not have a negative impact on the residents. This can be achieved by ensuring that the light sources are not visible to the surrounding areas, only the light effects on illuminated surfaces should be visible. The only exception would be highly diffused, low watt festoon lighting as they are unlikely to cause glare from a distance.

Care must also be taken to ensure that light is not lost vertically. Any fittings placed facing upwards must be fitted with a glare shield and / or snoot to ensure that the light is focused at the surfaces and not contributing to light pollution. The need to minimise sky glow and upward light applies to all exterior lighting applications. Lighting calculations should be undertaken of the proposed scheme to ensure that the lighting complies with this factor.

Holborn is a highly urbanised area, it falls under the E4 Environmental Zone which are districts with high brightness levels situated in city centres with a busy night-time economy. There is a high level of ambient illuminance already present in the surrounding area and the hotel facade, which is visible to the surrounding area, is currently illuminated.

In summary, the addition of a roof top bar to the NYX Hotel will not have a negative impact on the surrounding area as long as attention is taken to ensure that the fittings are not visible to the surrounding buildings and that no glare is caused by the new installation. Any newly prosed scheme will have less of a visual impact of that of the facade lighting which is already present on the hotel.





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