

### **The Roof lighting**

According to the ILP Guidance notes for the reduction of obtrusive light, 2011. Under table 1 - E4 - Environmental zones under town / city centre with high level of night time activity. Which reference on Table 2 – Obtrusive light limitation for exterior lighting installation – general observer. The E4 allow for light intrusion (into windows) between 25 – 5 lux (Pre and post curfew).

Please refer to attached roof level normal lighting calculation. The ISO lux spill is generally on the footpath within the roof level. The lux level at the roof level wall is less than 10 lux and would be considerably lower than 5 lux at the property on the opposite side of the street. Therefore this is within the allowance range.

The roof lighting would be operated late afternoon / early evening as access is not possible in the morning before 08.00 as the building is locked.

All external lighting is controlled by photocell, time clock and manual override.

### **On Huntley Street (front entrance) & Shropshire Place service road (rear entrance).**

Within the building overhang / canopy are recessed downlighters with wide beam projection, it can be seen from the attached ISO lux levels that the light spill is generally restricted to the area below the overhang and the footpath. The lights are solely downlighting with no upward light spill, so this will not affect neighbours.

All external lighting is controlled by photocell, time clock and manual override.

The time switch will be set in accordance with UCLH's operational working hours of the hospital and will be automatically controlled via the timeclock and lighting control system. This will need to be agreed so not to affect neighbour light spill.

### **General light spill from building.**

All internal lights at ground floor level are dimmable with the ability for light to be set at a low light level during night time hour for energy saving reasons.

On the upper floors, corridor / circulation spaces make up the majority of area the external elevation with typical light level with circle 150 to 200 lux derived from recessed luminance (i.e. downlight) within the corridor, therefore light spill from windows will not be direct light from the luminance.

The luminaire selection and lighting control have been chosen to minimise the risk of the light pollution.

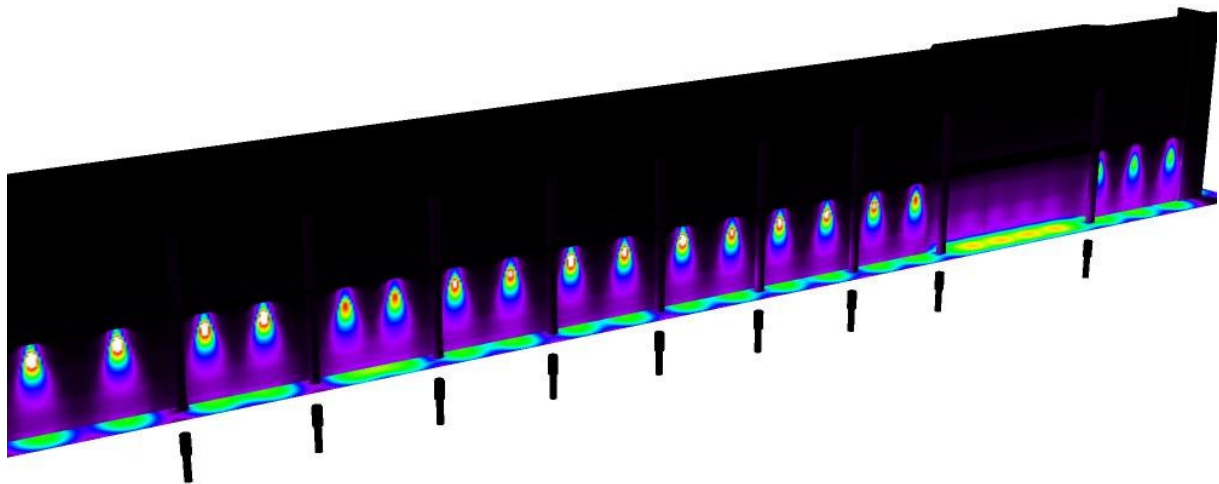
Furthermore all lights are PIR controlled, so the lights can dim or switch off when the area adjacent are vacant, thus reducing the possibility of light pollution.

The time switch will be set in accordance with UCLH's operational working hours of the hospital and will be automatically controlled via the timeclock and lighting control system. This will need to be agreed so not to affect neighbour light spill.



Operator  
Telephone  
Fax  
e-Mail

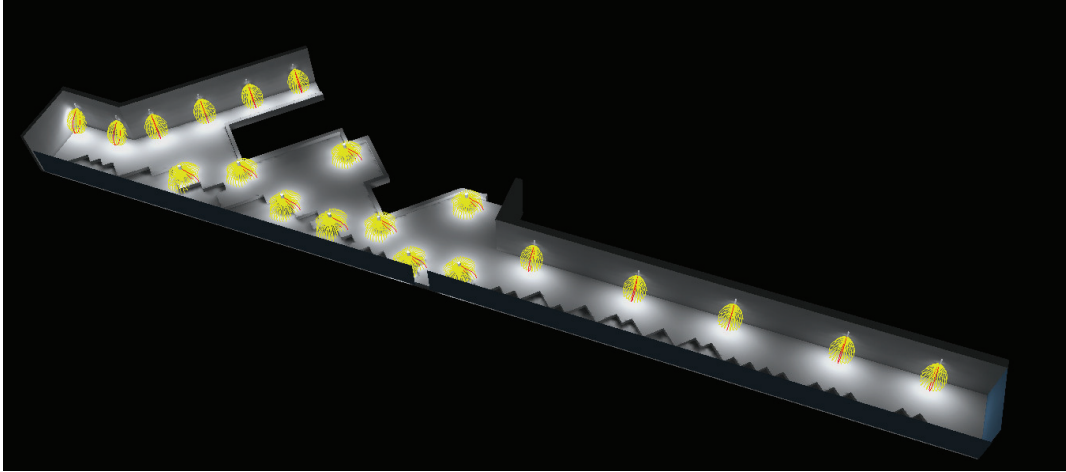
### East Face Main Entrance & Decorative Lighting / False Colour Rendering



0    31.25    62.50    93.75    125    156.25    187.50    218.75    250    lx

# UCLH PHASE 5

## Level 06 Lighting Calculations.



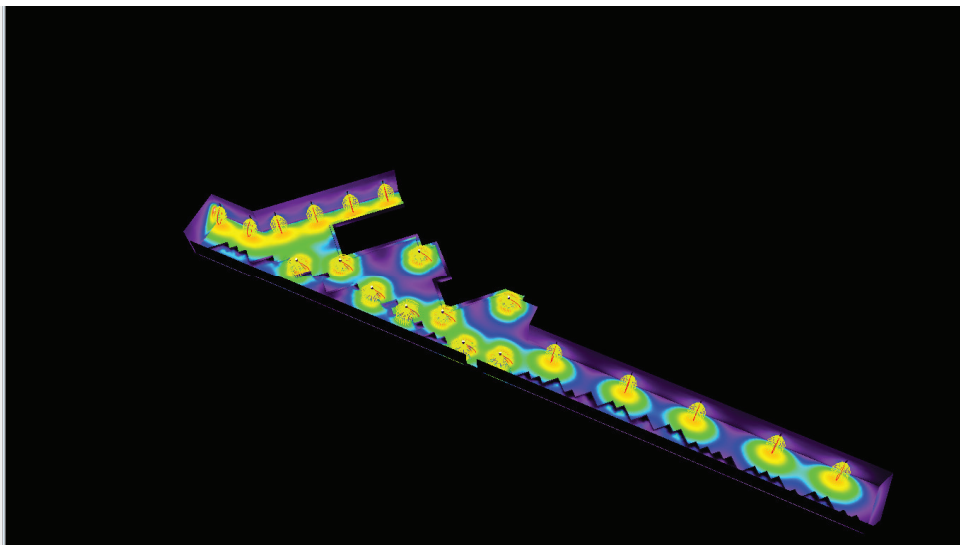
**False Colours**

Illuminances  Luminance

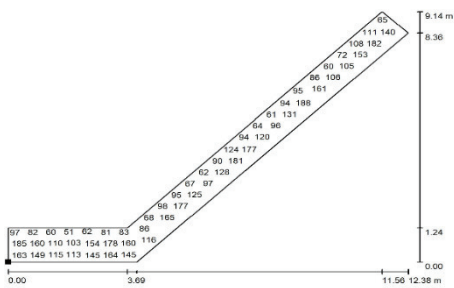
400.00	lx
300.00	lx
200.00	lx
100.00	lx
50.00	lx
30.00	lx
20.00	lx
10.00	lx
0.00	lx

Colours Sort

- Luminaires (coordinates list)
- Colour filter (layout)
- Objects (layout plans)
- Objects (coordinates lists)
- Sport Sites (layout plan)
- Sport Sites (Coordinates List)
- TV Cameras (Coordinates List)
- Pole Positions (Coordinates List)
- Pole Luminaires (Summary)
- Sport Luminaires (Coordinates List)
- Calculation Grid (Coordinates List)
- Task Area (Coordinates list)
- Street-valuation fields (list of coordinates)
- Luminous intensity calculation points (control group commissioning)
- Calculation surfaces (results overview)
- Calculation points (results overview)
- GR Observer (Results Overview)
- 3D Rendering
- False Colour Rendering
- Exterior Surfaces
  - Ground Element 1
  - Calculation Surface 1



Exterior Scene 1 / Calculation Surface 1 / Value Chart (E, Perpendicular)



Values in Lux, Scale 1 : 89

Not all calculated values could be displayed.  
Position of surface in external scene:  
Marked point: (23.789 m, 26.300 m, 9.250 m)



Grid: 128 x 64 Points

$E_{av}$  [lx]  
116

$E_{min}$  [lx]  
23

$E_{max}$  [lx]  
190

$u0$   
0.202

$E_{min} / E_{max}$   
0.123