

STREET LIGHTING

Installation : PENLEY HALL

Project number : NWD ARCHITECTS

Customer : NWD ARCHITECTS

Processed by : DENNIS HESKETH

Date : 14.03.2022

This project has been designed in accordance with British Standards and relevant lighting guides that were current at the time of the design/quote being proposed.

It is essential that all aspects relating to this proposal are checked and all aspects of the criteria used to compile the proposal are correct. If there are any deviations from the criteria Dextra Group need to be informed and proposals amended to suit. If there are assumptions or deviations that the Dextra design engineers have made and these are not in line with the specification or design intentions, then Dextra Group need to be informed and amendments advised.

All calculations within the Dextra Group proposal are based upon an open area without obstructions above the working plane. Ceiling/ Wall and floor reflectance's have been assumed unless stated. Any daylight from windows have not been factored into the calculations and all calculations are based around the specification supplied to Dextra before the lighting design is carried out.

All illuminance levels /unified glare ratios/ ceiling, wall and floor ratios have been made clear in order for the level of compliance to relevant Lighting guides/ British standards to be clear and obvious. These results should be checked and all aspects of compliance approved prior to an order.

If we have proposed an Emergency lighting scheme then it needs be checked and confirmed in order that it will satisfy the requirements of the person responsible for the building and or any local building control/fire officer. It is the responsibility of the building owner to ensure that a fully compliant emergency anti panic lighting scheme is installed. Emergency lighting scheme has been done in line with current British standards. If there are any high risks areas or areas that require specific illumination that are not made clear and not allowed for within the Dextra Group proposal, then these need to be highlighted and considered in order to achieve compliance.

The Dextra proposal will include exit signs by final exits and an emergency light outside final exits. Unless stated there has been no provision for emergency lighting to a safe place away from the building or to an assembly point.

Unless stated there will be no provision for fire tents on any of the products proposed, if however it is necessary for a fire barrier in line with current building regulations then Dextra Group offer a comprehensive range of fire tents that can be quoted upon request.

If there are any areas that need a ligature resistant luminaire then Dextra Group need to be notified so that an appropriate product can be proposed.

Any 'Protected zones' that are not obvious and clearly marked will need to be identified and changes will need to be made to the proposals as these areas require specialist lighting. Areas like firefighters stairwells and lifts are examples of these type of areas.

The following values are based on exact calculations on calibrated lamps, luminaires and their arrangement. In practice, gradual divergences can occur.

Guarantee claims for luminaire data are excluded.

Relux and the luminaire manufacturers accept no liability for consequential damage and damage which is occasioned to the user or to third parties.

1 Luminaire data

1.1 Dextra Group PLC, (!OPUCL L44 AS)

1.1.1 Data sheet

Manufacturer: Dextra Group PLC



!OPUCL L44 AS lanterns with posts

OPUCL L44 AS C84 - IP65 Column top mounted asymmetric LED luminaire, 3644 luminaire lumens, matt grey weather resistant and salt spray tested paint finish. Diecast aluminium housing, injection moulded polycarbonate front cover, integral column spigot fixing mechanism included, supplied with 10m prewired flex to facilitate installation.

Options:

PH - Photocell

NEM - NEMA Socket

OPUC 76mm SPIG - 76MM Spigot Fix

OPUC WB - Opus Column Wall Mount Bracket

BL - Black Body

Luminaire data

Absolute Photometry

Luminaire efficacy : 135.99 lm/W

Classification : A40 ↓100.0% ↑0.0%

CIE Flux Codes : 47 81 99 100 100

UGR 4H 8H : 29.1 / 15.2

Control gear : electronic ballast

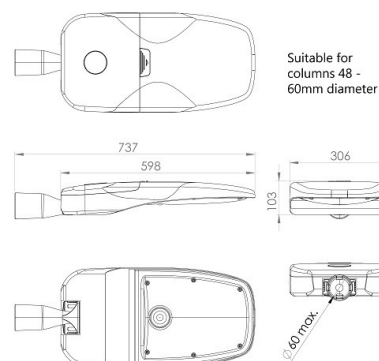
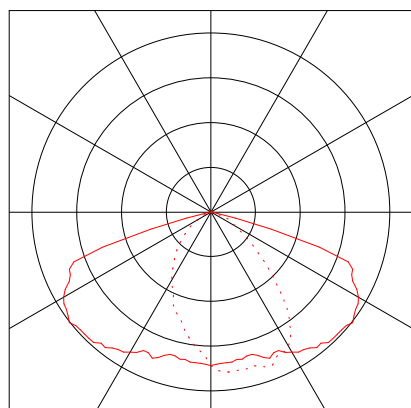
Power : 26.77 W

Luminous flux : 3640.4 lm

Equipped with

Quantity : 1
 Designation : Dextra
 Colour : 4000K
 Colour reproduction : 1B

Dimensions : 737 mm x 306 mm x 103 mm



2 Exterior 1

2.1 Description, Exterior 1

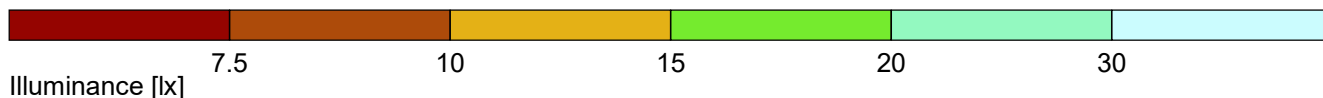
2.1.1 Floor plan



2 Exterior 1

2.2 Summary, Exterior 1

2.2.1 Result overview, Measuring area 1



General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.00 m
photometric centre height. [m]:	5.00 m
Maintenance factor	0.80

Total luminous flux of all lamps	61948 lm
Total power	455.1 W
Total power per area (5316.31 m²)	0.09 W/m²

Illuminance

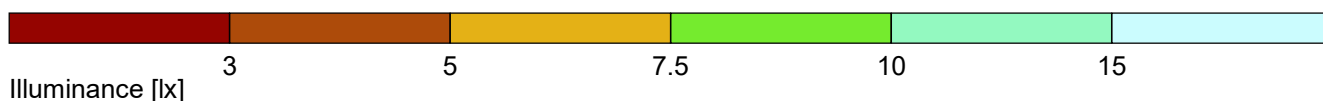
Average illuminance	Eav	16.3 lx
Minimum illuminance	Emin	6.4 lx
Maximum illuminance	Emax	32 lx
Uniformity Uo	Emin/Em	1:2.55 (0.39)
Diversity Ud	Emin/Emax	1:5.02 (0.2)

Type No.\Make

1	17	Dextra Group PLC
		Order No. : !OPUCL L44 AS/
		Luminaire name :
		Equipment : 1 x Dextra 26.77 W / 3644 lm

2.2 Summary, Exterior 1

2.2.2 Result overview, Evaluation area 1



General

Calculation algorithm used
 photometric centre height.
 Maintenance factor

Average indirect fraction
 5.00 m
 0.80

Total luminous flux of all lamps
 Total power
 Total power per area (5316.31 m²)

61948 lm
 455.1 W
 0.09 W/m² (1.23 W/m²/100lx)

Evaluation area 1

Reference plane 1.1

Horizontal
 Em
 Emin
 Emin/Eav (Uo)
 Emin/Emax (Ud)
 Position

6.95 lx
 0 lx

 0.00 m

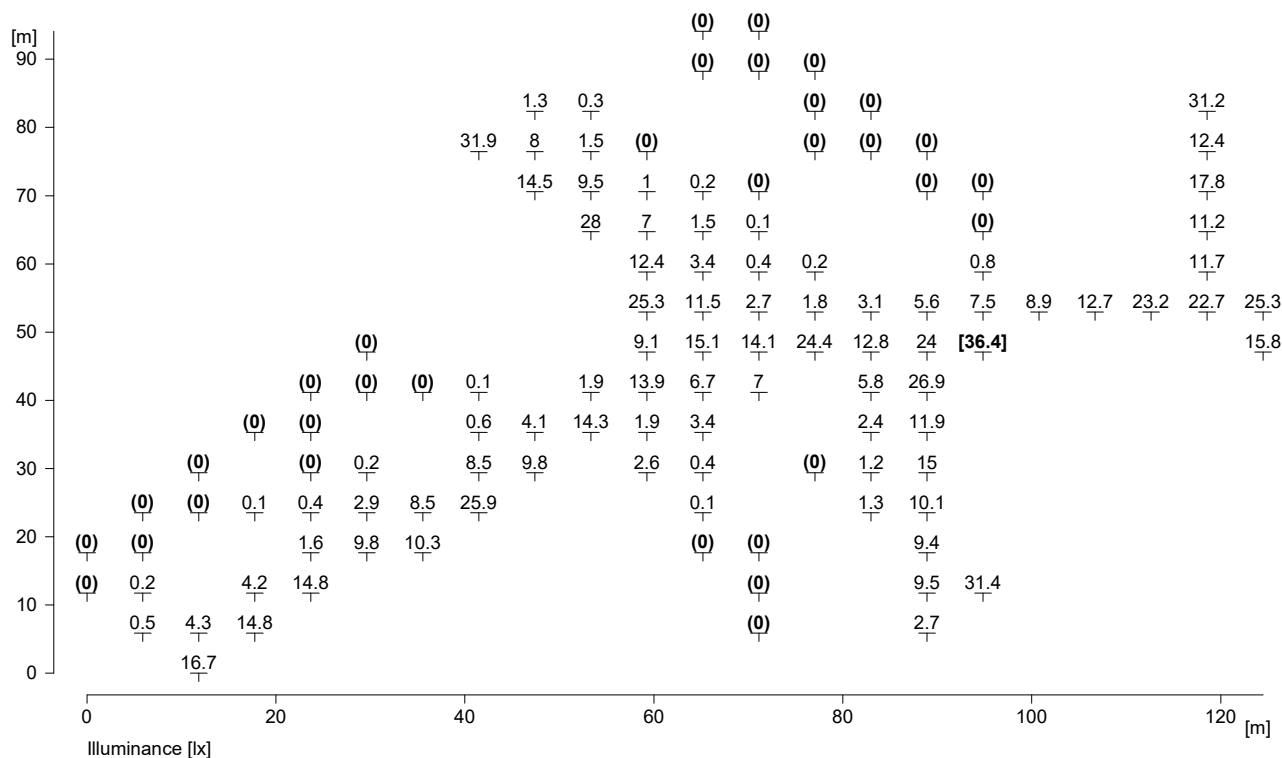
Type No.\Make

		Dextra Group PLC
1	17	Order No. : !OPUCL L44 AS/
		Luminaire name :
		Equipment : 1 x Dextra 26.77 W / 3644 lm

2 Exterior 1

2.3 Calculation results, Exterior 1

2.3.1 Table, Reference plane 1.1 (E)

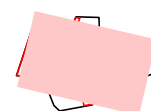
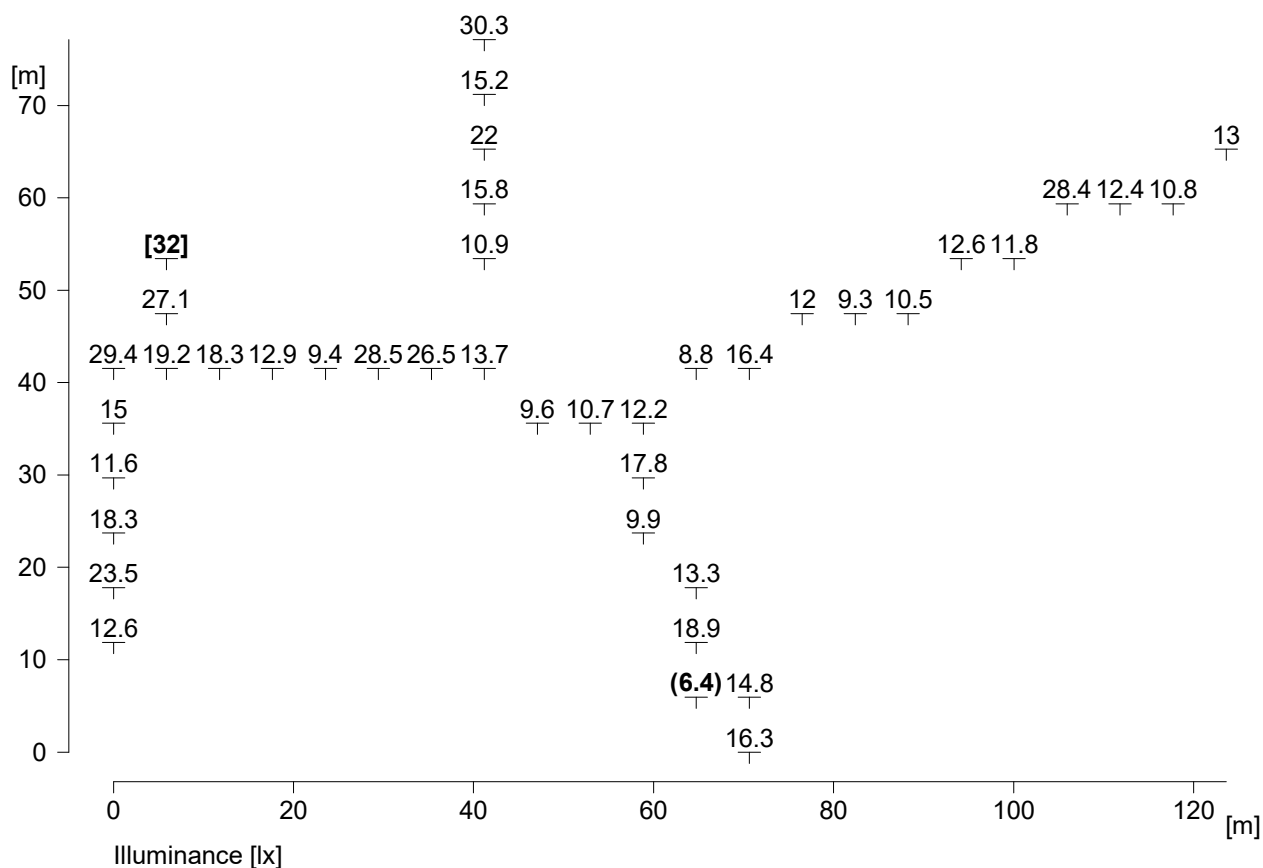


Height of the reference plane

Average illuminance	Eav	: 0.00 m
Minimum illuminance	Emin	: 6.9 lx
Maximum illuminance	Emax	: 0 lx
Uniformity Uo	Emin/Eav	: 36.4 lx
Diversity Ud	Emin/Emax	: ---
		: ---

2.3 Calculation results, Exterior 1

2.3.2 Table, Measuring area 1 (E)

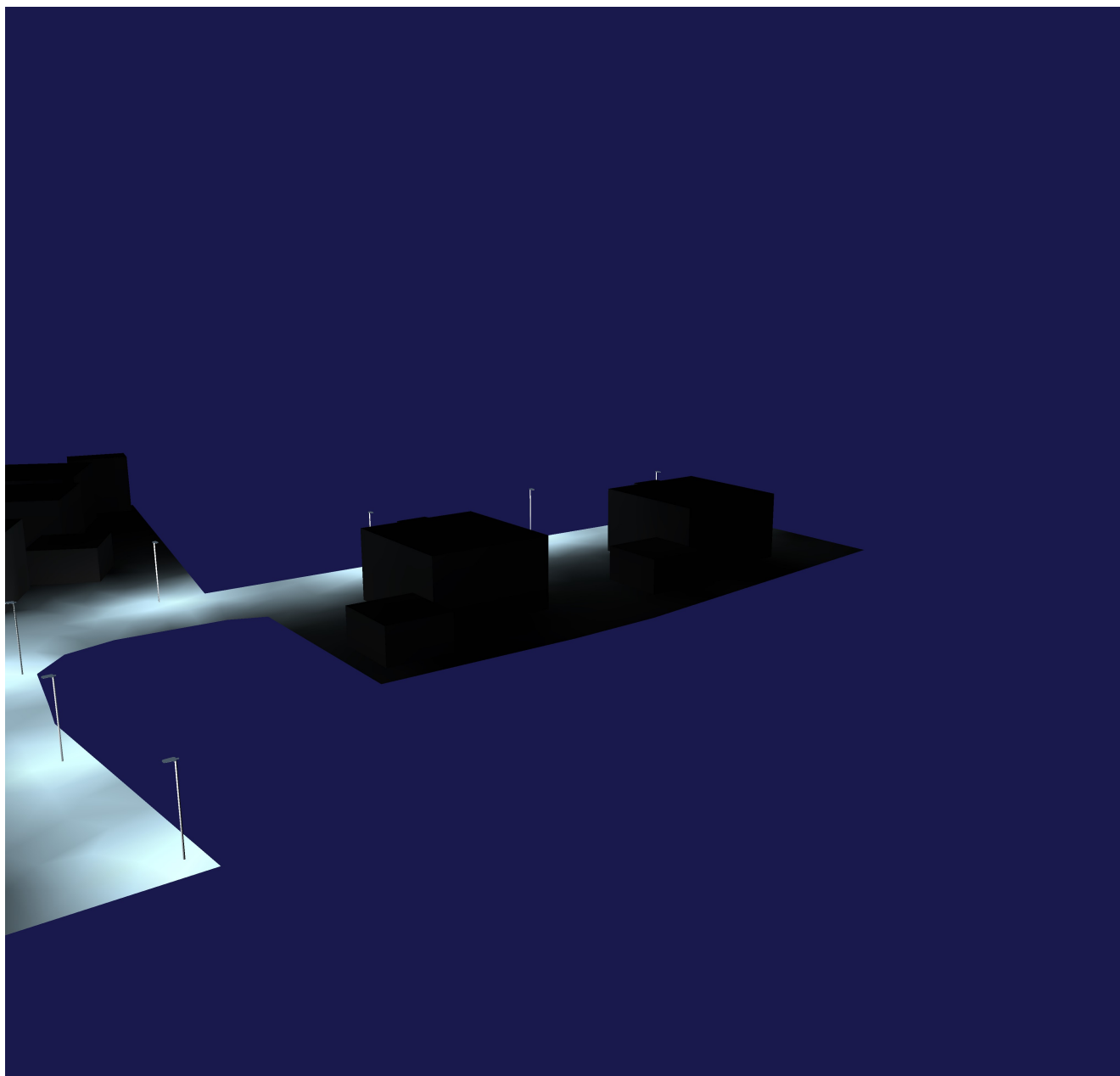


Height of the reference plane

Average illuminance	Eav	: 0.00 m
Minimum illuminance	Emin	: 16.3 lx
Maximum illuminance	Emax	: 6.4 lx
Uniformity Uo	Emin/Eav	: 1 : 2.55 (0.39)
Diversity Ud	Emin/Emax	: 1 : 5.02 (0.20)

2.3 Calculation results, Exterior 1

2.3.3 3D luminance, View 1



Luminance in the scene

Minimum: : 0 cd/m²

Maximum: : 18.6 cd/m²