

The top half of the page features a large, semi-circular graphic on the right side. It contains a white architectural wireframe of a building complex, overlaid on a solid green background. The wireframe shows various rooms, corridors, and structural elements. To the left of this graphic, the OCSC logo is displayed in a bold, green, sans-serif font.

OCSC

O'CONNOR · SUTTON · CRONIN
MULTIDISCIPLINARY CONSULTING ENGINEERS

PUBLIC LIGHTING REPORT

SCHOOL SITE AT KILCARBERY

PROJECT NO. S1071

November 2023

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DOCUMENT CONTROL & HISTORY

OCSC Job No.: S1071	Project Code	Originator Code	Zone Code	Level Code	File Type	Role Type	Number Series	Status/ Suitability Code	Revision
	S1071	OCSC	XX	XX	RP	E	0001	S2	P01
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1. INTRODUCTION

This report outlines the design criteria and considerations taken into account with regard to the lighting scheme within the proposed residential development at the School Site in Kilcarbery Grange.

The report considers the lighting design as developed by O'Connor Sutton Cronin (OCSC), and should be read in conjunction with OCSC drawing number: S1071-OCSC-XX-00-DR-ME-0001

The drawing is provided to demonstrate:

- Compliance with SDCC public lighting standards for areas to be taken in charge,

Standards and guidelines in relation to the lighting design are:

- BS 5489-1-2013
- South Dublin City Council Public Lighting General Specification.

The electrical services for the external lighting installation will be designed in accordance with IS: 10101 National Rules for Electrical Installation.

2. DEVELOPMENT DESCRIPTION

The proposal has been prepared on behalf of South Dublin County Council as a Part 8 application for a residential development, consisting of 88 residential units on undeveloped lands measuring c. 2.04 hectares adjoining the Upper Nangor Rd, Kilcarbery Grange, Dublin 22.

The proposed development consists of a mix of 88 units consisting of a variety of house and duplex types. The units proposed include 44 no. 3bed 2 storey houses, 8 no. 4 bed 2 storeys houses, 36 no. duplex units (varying from 1 to 3 beds) within 3 storey duplex blocks. The development includes 100 no. surface car park spaces and 110 no. bicycle parking spaces, above ground sustainable urban drainage measures, an ESB kiosk, Irish Water below-ground foul pumping station, proposed new roads, footpath and cycle-paths (including works to provide a cycle-path along a portion of the Upper Nangor Rd), public open space areas, landscape works, bin/bicycle stores and all associated ancillary site development works.

3. THE DESIGN

The lighting design has been developed with the following principal considerations:

- Provide adequate illumination to contribute towards the safe use of the School Site at Kilcarbery.
- Provide the required illumination with minimum energy use.
- To control the lighting to prevent energy wastage.

All lighting within the area to be taken in charge is to be powered via a new lighting minipillar to meet SDCC specification.

The minimum lux level is to be in compliance with the required P3/P4 class as advised by SDCC to comply with SDCC Public Lighting Specification and BS5489-2013

As per SDCC Public Lighting Specification BS5489:2013 the requirement for Kilcarbery will need to meet lux levels described in Annex A for pedestrians and cyclists only as a P3 class.

The luminaires to be LED, 1.5 S/P Ratio, 4000k CCT, LM80 >15 years using TM21-11 test results, driver current < 750mA, minimum IK08 impact resistance, at least IP65 ingress protection, as required by SDCC specification.

The lighting shall be by individual electronic solid state photocell per luminaire, with test switch in column base, to SDCC specification. The luminaires proposed for these areas pole mounted to comply with SDCC standards and regulations.

Any lighting columns shall be tubular type, galvanised steel, fully in accordance with SDCC standard specification.

All wiring to be to SDCC standard specification and to IS: 10101 National Rules for Electrical Installations.

The desired lighting design may also be achieved by other luminaires and the final lighting installation may use other luminaires, with modified positioning and aiming to achieve the same result. Manufacturers' stated performance characteristics are subject to change. Any changes to be agreed with SDCC Public Lighting Department.

Calculation results are available as attached within Appendix A

.Manufacturer's data sheets for the selected luminaires are attached to this document as Appendix B.

APPENDIX A CALCULATION RESULTS.



Results

Eav	6.55
Emin	1.00
Emax	15.32
Emin/Emax	0.07
Emin/Eav	0.15

APPENDIX B MAUNFACTURERS DATA SHEET.



Luminaire E Data

Supplier	Urbis Schreder
Type	AXIA 3.1 5267 Integrated lenses 8 OSLO N SQUARE GIANT@300mA
Lamp(s)	8 OSLO N SQUARE GIANT@300mA NW 7 730 230V
LampFlux(klm)/Colour	1.11 NW 3000K/70
File Name	AXIA 3.1 5267 8 OSLO N SQUARE GIANT 3 00mA NW 730 8.3W 429102 Integrated le...
Maintenance Factor	0.85
Imax70,80,90(cd/klm)	985.2, 145.1, 0.0
No. in Project	5



Luminaire B Data

Supplier	Urbis Schreder
Type	AXIA 3.1 5295 Integrated lenses 8 OSLO N SQUARE GIANT@600mA
Lamp(s)	8 OSLO N SQUARE GIANT@600mA NW 7 730 230V
LampFlux(klm)/Colour	2.13 NW 3000K/70
File Name	AXIA 3.1 5295 8 OSLO N SQUARE GIANT 6 00mA NW 730 16.3W 435822 Integrated I...
Maintenance Factor	0.85
Imax70,80,90(cd/klm)	711.2, 23.8, 0.0
No. in Project	34