

# LiAS Design Notes

This preliminary design is produced by the Lighting Application Specialist (LiAS) team of Signify UK based on information supplied by the Customer for the purpose of identifying suitable products and costing the proposal. This design cannot be used for Construction, as this design does not purport to eliminate health and safety risks as a CDM Regulation risk assessment has not been undertaken.

Depending on the level of information received, a number of assumptions may have been applied in order to create an indicative lighting proposal and costing model, according to lighting industry guidelines and incorporating industry best practice methods. These assumptions are documented below and will require confirmation by the Principle Designer or PSDP (which are not Signify UK&I) during the detailed design phase.

## Project Specific Assumptions

- See opposite

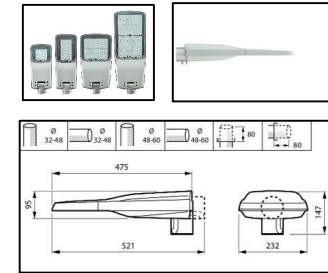
## Generic Assumptions (unless specifically informed differently)

- Preliminary Design proposals produced by the Signify LiAS Team are not to be used for installation purposes. It is the responsibility of the Principle Designer and/or Principle Contractor to ensure all Installation and Maintenance can be done in a safe manner, carried out by competent persons, based on their agreed Risk Assessments and Method Statements.
- The Luminaire Maintenance Factors have been based on 6-year cleaning intervals within an E3/E4 Environmental Zone and it is assumed that lamp/luminaire failures will be replaced on a 'spot replacement'.
- Energy consumptions have been based on the luminaire/s having Constant Light Output (CLO) enabled and the quoted wattage/s are the average over 100,000 hours (without dimming).
- The design calculations produced by Signify do not account for the effect obstructions, such as trees, will cause.
- Signify has not been provided with utility plans showing Buried, Above Ground or Overhead utilities. Therefore, all column/luminaire locations are indicative and are subject to review/verification by the Principle Designer.
- Unless stated otherwise, Signify has not visited site. Therefore, all column/luminaire locations are indicative and are subject to an onsite verification arranged/performed by the Principle Designer.
- Signify has not produced any Private Cable Network electrical calculations or reviewed the DNO network to confirm power supplies to the proposed lighting.
- Signify has not performed any asset condition testing and therefore assumes that any existing lighting columns/wall mounted brackets are structurally capable of supporting the weight & windage of the proposed luminaire/s. This must be verified by the Principle Designer before installation works commence.
- Unless stated otherwise, Signify is not supplying the new lighting columns (including brackets etc) and therefore it is the responsibility of the Principle Designers to confirm that all proposed equipment is suitable for the intended locations (e.g. raise & lower, ground condition, foundation type, saline environment, etc).
- Unless stated otherwise, luminaires will be supplied in their standard colour.

# Luminaire Schedule

6m LumiStreet 6 Klm DM31 P/T  
 PHILIPS BGP291 DM31  
 lamp(s) LED-HB 5.2S 740  
 candela file 'LumiStreet Gen2 Micro\_BGP291\_DM31\_6000\_20LED\_5.2S\_CLO\_L90\_740.lvs'  
 1 lamp(s) per luminaire, 6000 initial lumens per lamp  
 Maintenance Factor = 0.950, watts per luminaire = 36  
 Outreach (from mounting axis to photometric center)= 400 mm  
 tilt angle= 5 deg  
 mounting height= 6 m  
 number locations= 37, number luminaires= 37  
 kw all locations= 1.3

Access Road  
 3663 points at z=0, sp 1.5m by 1.5m  
 HORIZONTAL LUX  
 Average 13.6  
 Maximum 37.7  
 Minimum 2.3  
 Min/Avg(Lux) 0.189  
 Min/Max 0.061  
 Coef Var 0.544  
 Uni/Grad 2.25



Notes:  
 All fittings are on 6m Post Top columns.

Design to achieve BS EN 5489 Pt 1 P2 = 10 lux ave, 2 lux min

Luminaire used is Philips LumiStreet G2 BGP291 Micro luminaire. This luminaire maximum output is 6.6 Klm. 6 Klm 36w version used here to achieve 10 lux ave, 2 lux minimum

Fittings tilted up at 5 degrees, can be 0 degree on narrower sections. Tilt achieved by adjusting tilt on luminaire when installed on lighting column.

Could get slightly higher spacing with narrower beam optic on narrower sections, but wanted to keep all optics the same for ease of any future maintenance.

Max spacing on 8.8m total width is 31m Max, Max spacing on wider total 10.5m width is 34m max, spacing reduced slightly from these values to allow for bends and any potential problems that may cause spacing to be extended slightly on site.

Previous design by other manufacturer stopped short of college building. This scheme continues to building, which is why there are more columns on this scheme. Please delete columns to extents required.

## Signify Lighting Contacts

Andy Poplett, Key Account Manager - 07810 832266 - andrew.poplett@signify.com



Rev	DSR no.	Comment	Date	LIAS	KAM	Project Number	Project Name
0	D-3435812	Illumination of Access Road to P2 = 10 lux ave, 2 lux min on 6m columns	08/12/21	SJ	AP	0400685562	Lord Wandsworth College, Long Sutton, Hook
						Scale & Sheet Size	Drawing Name
						NTS @ A3	LIAS DESIGN NOTES & LUMINAIRE SCHEDULE
						Sheet No	
						DWG 00	

**PROPOSAL**  
 (NOT FOR CONSTRUCTION)

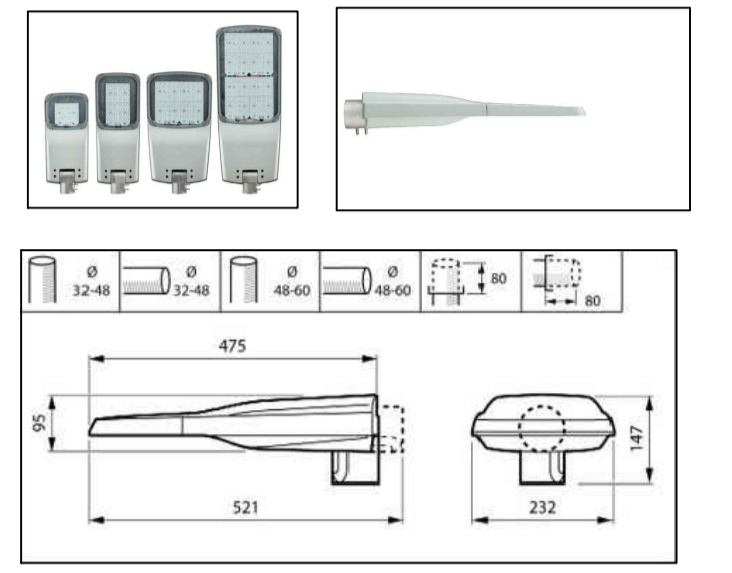
**Lighting Proposal Terms and Conditions of Use**  
 These terms apply to the use of this preliminary proposal produced by Signify UK. This "Proposal" is understood to mean this document, a CAD drawing, lighting calculations, written documents, verbal conversations or any medium used to demonstrate or communicate the proposed lighting scheme using products from Signify's brands. A "Customer" is the person or organisation for whom the Proposal is intended. The "CDM Regulations" means The Construction, Design and Management Regulations 2015, the Safety, Health & Welfare at Work Act 2005, The Construction (Design & Management) Regulations (Northern Ireland) 2015.  
 This Proposal is for guidance only and cannot be relied upon for purposes of installation or Health and Safety.  
 The supply and installation of this lighting scheme are subject to a contract being agreed between Customer and Signify.



**Key:**

6m LumiStreet 6 Klm DM31 P/T  
 PHILIPS BGP291 DM31  
 lamp(s): LED-H8 5.25 740  
 candelabra file 'LumiStreet Gen2 Micro\_BGP291\_DM31\_6000\_20LED\_5.25\_CLO\_L9'  
 1 lamp(s) per luminaire, 6000 initial lumens per lamp  
 Maintenance Factor = 0.900, watts per luminaire = 36  
 Outreach (from mounting axis to photometric center)= 400 mm  
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Access Road  
 3563 points at z=0, sp 1.5m by 1.5m  
**HORIZONTAL LUX**  
 Average 13.6  
 Maximum 37.7  
 Minimum 2.3  
 Min/Avg(Lx) 0.169  
 Min/Max 0.091  
 Coef Var 0.544  
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**Notes:**  
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**Notes:**

- 1) Unless agreed otherwise, the lighting proposal produced by the Lighting Application Specialist (LIAS) team of Signify UK&I is not intended for construction purposes, as it does not take into account the elimination of health and safety risks at this stage. For further details please refer to sheet number **DWG 00**
- 2) Do not scale for this drawing

**PROPOSAL**  
(NOT FOR CONSTRUCTION)

Rev	DSR no.	Comment	Date	LIAS	KAM
0	D-3435812	Illumination of Access Road to P2 = 10 lux ave, 2 lux min on 6m columns	08/12/21	SJ	AP

Project Number	0400685562	Project Name	Lord Wandsworth College, Long Sutton, Hook
Scale & Sheet Size	1:1000 @ A1	Drawing Name	6m P2 = 10 lux ave, 2 lux Min - Access Road to College
Sheet No	DWG 01		