

# 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 Principal Designer (which is not Signify UK) during the detailed design phase.

## Project Specific Design Comments:

- Where 'Lighting Classes' have not been provided/specified, the calculations have been produced using Lidl Specification lighting classes
- Where column heights have not been provided/specified, these have been assumed to be 6m.
- Where wall/ceiling mounting heights have not been provided/specified, these have been assumed to be 3.25m.
- It has been assumed that luminaires on columns will be mounted post-top or on 0.5m outreach brackets.
- It has been assumed that canopy luminaires will be ceiling mounted.
- It has been assumed that LL-E/LL-E EM luminaires will be wall mounted.
- Signify has not undertaken any emergency lighting calculations. Luminaires marked as emergency fittings are for indicative purposes only. It is the responsibility of the Principal Designer to ensure emergency lighting calculations are performed and that all emergency evacuation routes are lit to a suitable standard.
- Preliminary Design proposals produced by the Signify LiAS Team are not to be used for installation purposes. It is the responsibility of the Principal Designer and/or Principal 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 Principal 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 Principal 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 Principal 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 Principal 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



LL-E  
Emergency Version

1 lamp(s) per luminaire, 4200 initial lumens per lamp  
Maintenance Factor = 0.800, watts per luminaire = 26  
Outreach (from mounting axis to photometric center)= 0 mm  
tilt angle= 10 deg  
mounting height= 3.25 m  
number locations= 6, number luminaires= 6



LL-E

1 lamp(s) per luminaire, 4200 initial lumens per lamp  
Maintenance Factor = 0.800, watts per luminaire = 26  
Outreach (from mounting axis to photometric center)= 0 mm  
tilt angle= 10 deg  
mounting height= 3.25 m  
number locations= 14, number luminaires= 14



Single LL-C

1 lamp(s) per luminaire, 7500 initial lumens per lamp  
Maintenance Factor = 0.760, watts per luminaire = 0  
Outreach (from mounting axis to photometric center)= 400 mm  
tilt angle= 5 deg  
mounting height= 6 m  
number locations= 12, number luminaires= 12



LL-Canopy  
Emergency Version

1 lamp(s) per luminaire, 2100 initial lumens per lamp  
Maintenance Factor = 0.800, watts per luminaire = 18  
Outreach (from mounting axis to photometric center)= 0 mm  
mounting height= 3.25 m  
number locations= 1, number luminaires= 1



Twin LL-C

1 lamp(s) per luminaire, 7500 initial lumens per lamp  
Maintenance Factor = 0.760, watts per luminaire = 0  
Outreach (from mounting axis to photometric center)= 600 mm  
tilt angle= 5 deg  
mounting height= 6 m  
number locations= 4, number luminaires= 8



LL-Canopy

1 lamp(s) per luminaire, 2100 initial lumens per lamp  
Maintenance Factor = 0.800, watts per luminaire = 18  
Outreach (from mounting axis to photometric center)= 0 mm  
mounting height= 3.25 m  
number locations= 17, number luminaires= 17

## Signify Lighting Contacts

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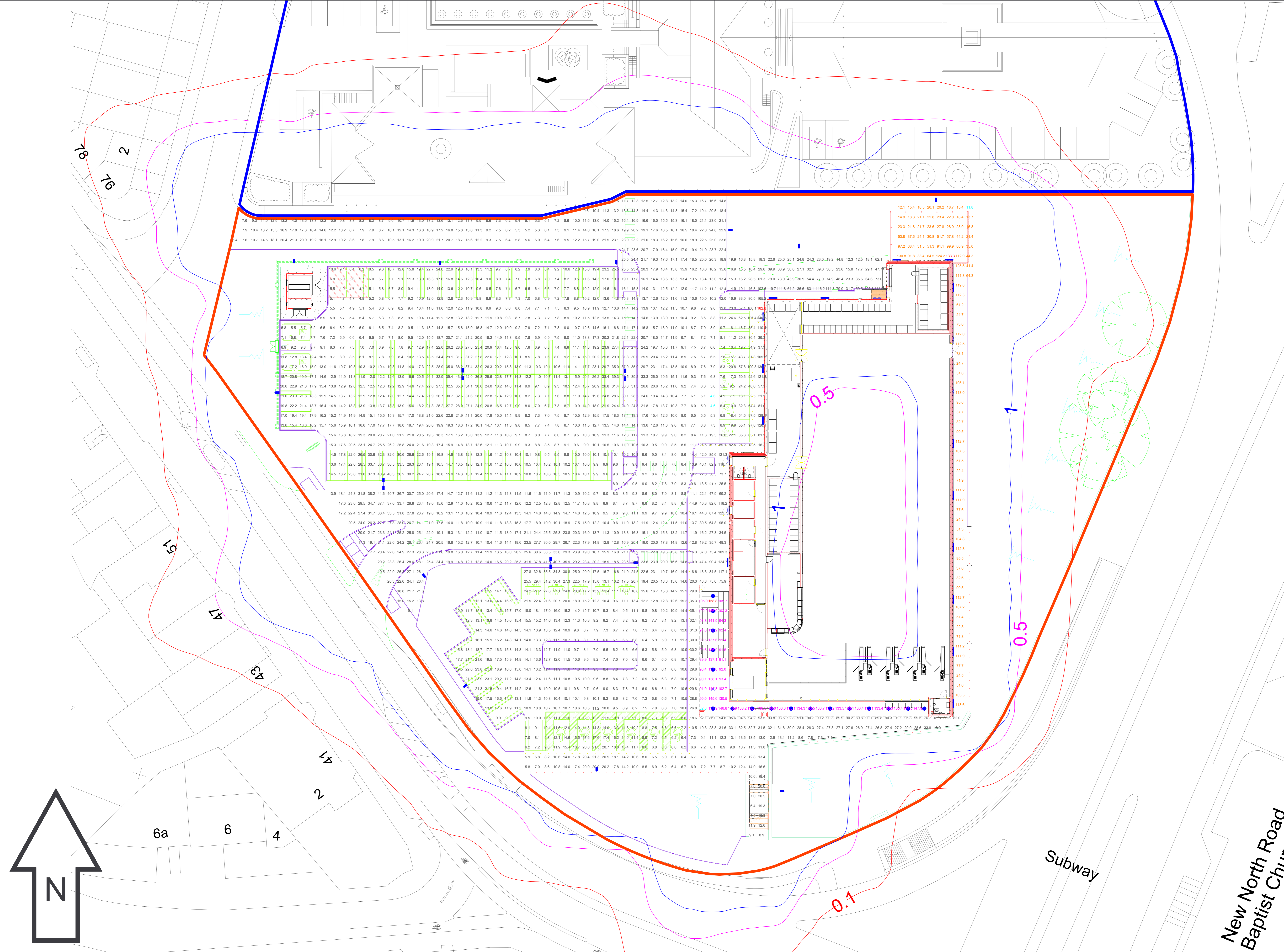


**Lighting Proposal Terms and Conditions of Use**  
These terms apply to the use of this preliminary proposal produced by Signify UK. This "Proposal" is understood to mean this document, a CAD drawing, lighting calculations, written documents, verbal conversations or any medium used to demonstrate or 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.

**PROPOSAL**  
(NOT FOR CONSTRUCTION)

Rev	DSR no.	Comment	Date	LiAS	KAM
0	D-468800	Initial proposal.	29/07/22	MD	RF
1	D-486487	Luminaires removed/moved as requested.	29/11/22	MD	RF
2	D-487994	Luminaires moved and added to achieve requested levels.	09/12/22	MD	RF
3	D-578762	New site layout.	08/07/24	MD	RF

Project Number	Project Name
0400667192	Lidl Huddersfield Trinity
Scale & Sheet Size	Drawing Name
NTS @ A3	LiAS DESIGN NOTES & LUMINAIRE SCHEDULE
Sheet No	
DWG 00	



- LL-E  
Emergency Version  
1 lamp(s) per luminaire, 4200 initial lumens per lamp  
Maintenance Factor = 0.800, watts per luminaire = 26  
Outreach (from mounting axis to photometric center)= 0 mm  
tilt angle= 10 deg  
mounting height= 3.25 m  
number locations= 6, number luminaires= 6
- Single LL-C  
1 lamp(s) per luminaire, 7500 initial lumens per lamp  
Maintenance Factor = 0.760, watts per luminaire = 0  
Outreach (from mounting axis to photometric center)= 400 mm  
tilt angle= 5 deg  
mounting height= 6 m  
number locations= 12, number luminaires= 12
- Twin LL-C  
1 lamp(s) per luminaire, 7500 initial lumens per lamp  
Maintenance Factor = 0.760, watts per luminaire = 0  
Outreach (from mounting axis to photometric center)= 600 mm  
tilt angle= 5 deg  
mounting height= 6 m  
number locations= 4, number luminaires= 8
- LL-E  
1 lamp(s) per luminaire, 4200 initial lumens per lamp  
Maintenance Factor = 0.800, watts per luminaire = 26  
Outreach (from mounting axis to photometric center)= 0 mm  
tilt angle= 10 deg  
mounting height= 3.25 m  
number locations= 14, number luminaires= 14
- ⊗ LL-Canopy  
Emergency Version  
1 lamp(s) per luminaire, 2100 initial lumens per lamp  
Maintenance Factor = 0.800, watts per luminaire = 18  
Outreach (from mounting axis to photometric center)= 0 mm  
mounting height= 3.25 m  
number locations= 1, number luminaires= 1
- LL-Canopy  
1 lamp(s) per luminaire, 2100 initial lumens per lamp  
Maintenance Factor = 0.800, watts per luminaire = 18  
Outreach (from mounting axis to photometric center)= 0 mm  
mounting height= 3.25 m  
number locations= 17, number luminaires= 17

Car Park / Loading Area 2182 points at z=0, sp 1.5m by 1.5m HORIZONTAL LUX		Rear Walkway / Plant Area 96 points at z=0, sp 1.5m by 1.5m HORIZONTAL LUX	
Average	18.6	Average	61.1
Maximum	182.8	Maximum	133.3
Minimum	4.6	Minimum	11.8
Min/Avg(Uo)	0.247	Min/Avg(Uo)	0.193
Min/Max	0.025	Min/Max	0.089
Coef Var	0.969	Coef Var	0.625
UniGrad	5.03	UniGrad	3.22

Notes:

- Unless agreed otherwise, the lighting proposal produced by the Lighting Application Specialist (LIAS) team of Philips Lighting 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
- Do not scale for this drawing

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Project Number	0400667192	Project Name	Lidl Huddersfield Trinity
Scale & Sheet Size	1:200 @ A0	Drawing Name	PROPOSED LIGHTING LAYOUT
Sheet No	DWG 01		

