

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

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

CP	Luma Gen2 Medium BGP704 80 LED DX10 15.5KLM WW 2700K lamp(s): LED-HB 5.2S 727 candela file 'Luma Gen2 Medium_BGP704_DX10_15500_80LED_5.2S_CLO_L90_727.Idt' 1 lamp(s) per luminaire, 15500 initial lumens per lamp Maintenance Factor = 0.760, watts per luminaire = 95 Outreach (from mounting axis to photometric center)= 400 mm mounting height= 6 m number locations= 3, number luminaires= 3
CP BL2	Luma Gen2 Medium BGP704 80 LED DX10 BL2 15.5KLM WW 2700K lamp(s): LED-HB 5.2S 727 candela file 'Luma Gen2 Medium_BGP704_DX10 BL2_15500_80LED_5.2S_CLO_L90_727.Idt' 1 lamp(s) per luminaire, 15500 initial lumens per lamp Maintenance Factor = 0.760, watts per luminaire = 95 Outreach (from mounting axis to photometric center)= 400 mm mounting height= 6 m number locations= 3, number luminaires= 3
DT	Luma Gen2 Mini BGP703 40 LED DM10 7.5KLM WW 727 lamp(s): LED-HB 5.2S 727 candela file 'Luma Gen2 Mini_BGP703_DM10_7500_40LED_5.2S_CLO_L90_727.Idt' 1 lamp(s) per luminaire, 7500 initial lumens per lamp Maintenance Factor = 0.760, watts per luminaire = 46 Outreach (from mounting axis to photometric center)= 400 mm mounting height= 6 m number locations= 1, number luminaires= 1
DT BL2	Luma Gen2 Mini BGP703 40 LED DM10 BL2 7.5KLM WW 727 lamp(s): LED-HB 5.2S 727 candela file 'Luma Gen2 Mini_BGP703_DM10 BL2_7500_40LED_5.2S_CLO_L90_727.Idt' 1 lamp(s) per luminaire, 7500 initial lumens per lamp Maintenance Factor = 0.760, watts per luminaire = 46 Outreach (from mounting axis to photometric center)= 400 mm mounting height= 6 m number locations= 6, number luminaires= 6
FP BL2	Luma Gen2 Micro BGP702 6 LED DM10 BL2 1.6KLM WW 2700K lamp(s): LED-HB 5.2S 727 candela file 'Luma Gen2 Micro_BGP702_DM10 BL2_1600_6LED_5.2S_CLO_L90_727.ies' 1 lamp(s) per luminaire, 1600 initial lumens per lamp Maintenance Factor = 0.760, watts per luminaire = 12 Outreach (from mounting axis to photometric center)= 400 mm mounting height= 4 m number locations= 3, number luminaires= 3

Car Park	
575 points at z=0, sp 1.5m by 1.5m	
HORIZONTAL LUX	
Average	25.24
Maximum	56.92
Minimum	6.53
Min/Avg(Uo)	0.259
Min/Max	0.115
Coef Var	0.385
UnifGrad	1.99

Drive Thru	
254 points at z=0, sp 1.5m by 1.5m	
HORIZONTAL LUX	
Average	25.19
Maximum	55.39
Minimum	6.40
Min/Avg(Uo)	0.254
Min/Max	0.116
Coef Var	0.458
UnifGrad	2.24

Walkway 2	
61 points at z=0, sp 1.5m by 1.5m	
HORIZONTAL LUX	
Average	10.06
Maximum	36.41
Minimum	3.13
Min/Avg(Uo)	0.311
Min/Max	0.086
Coef Var	0.731
UnifGrad	2.01



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	Project Number	Project Name
		0	6154074	INITIAL PROPOSAL	10.04.25	CP	LC	501734912	MCDONALDS MERTHYR TYDFIL
		1	6435587	NEW LAYOUT/ADDITIONAL AREA	01.09.25	CP	LC		
		2	6445159	BOLLARD LAYOUT CHANGE	05.09.25	CP	LC	Scale & Sheet Size	Drawing Name
		3	6807953	LIGHT SPILL REDUCTION	11.03.26	CP	LC	NTS @ A3	
								Sheet No	



- Key:
- CP** Luma Gen2 Medium BGP704 80 LED DX10 15.5KLM WW 2700K
lamp(s): LED-HB 5.2S 727
candle file Luma Gen2 Medium_BGP704_DX10_15500_80LED_5.2S_CLO_L90_727.kst
1 lamp(s) per luminaire, 15500 initial lumens per lamp
Maintenance Factor = 0.760, watts per luminaire = 95
Outreach (from mounting axis to photometric center)= 400 mm
mounting height= 6 m
number locations= 3, number luminaires= 3
 - CP BL2** Luma Gen2 Medium BGP704 80 LED DX10 BL2 15.5KLM WW 2700K
lamp(s): LED-HB 5.2S 727
candle file Luma Gen2 Medium_BGP704_DX10_BL2_15500_80LED_5.2S_CLO_L90_727.kst
1 lamp(s) per luminaire, 15500 initial lumens per lamp
Maintenance Factor = 0.760, watts per luminaire = 95
Outreach (from mounting axis to photometric center)= 400 mm
mounting height= 6 m
number locations= 3, number luminaires= 3
 - DT** Luma Gen2 Mini BGP703 40 LED DM10 7.5KLM WW 727
lamp(s): LED-HB 5.2S 727
candle file Luma Gen2 Mini_BGP703_DM10_7500_40LED_5.2S_CLO_L90_727.kst
1 lamp(s) per luminaire, 7500 initial lumens per lamp
Maintenance Factor = 0.760, watts per luminaire = 46
Outreach (from mounting axis to photometric center)= 400 mm
mounting height= 6 m
number locations= 1, number luminaires= 1
 - DT BL2** Luma Gen2 Mini BGP703 40 LED DM10 BL2 7.5KLM WW 727
lamp(s): LED-HB 5.2S 727
candle file Luma Gen2 Mini_BGP703_DM10_BL2_7500_40LED_5.2S_CLO_L90_727.kst
1 lamp(s) per luminaire, 7500 initial lumens per lamp
Maintenance Factor = 0.760, watts per luminaire = 46
Outreach (from mounting axis to photometric center)= 400 mm
mounting height= 6 m
number locations= 6, number luminaires= 6
 - FP BL2** Luma Gen2 Micro BGP702 6 LED DM10 BL2 1.6KLM WW 2700K
lamp(s): LED-HB 5.2S 727
candle file Luma Gen2 Micro_BGP702_DM10_BL2_1600_6LED_5.2S_CLO_L90_727.kst
1 lamp(s) per luminaire, 1600 initial lumens per lamp
Maintenance Factor = 0.760, watts per luminaire = 12
Outreach (from mounting axis to photometric center)= 400 mm
mounting height= 4 m
number locations= 3, number luminaires= 3

Car Park	575 points at z=0, sp 1.5m by 1.5m
HORIZONTAL LUX	
Average	25.24
Maximum	56.92
Minimum	6.53
Min/Avg(Uo)	0.229
Min/Max	0.115
Coef Var	0.385
Uni/Grad	1.99
Drive Thru	254 points at z=0, sp 1.5m by 1.5m
HORIZONTAL LUX	
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Maximum	36.41
Minimum	3.13
Min/Avg(Uo)	0.311
Min/Max	0.096
Coef Var	0.731
Uni/Grad	2.01



Notes:

- 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**
- Do not scale for this drawing

PROPOSAL
(NOT FOR CONSTRUCTION)

Rev	DSR no.	Comment	Date	LIAS	KAM
0	6154074	INITIAL PROPOSAL	10.04.25	CP	LC
1	6435587	NEW LAYOUT/ADDITIONAL AREA	01.09.25	CP	LC
2	6445159	BOLLARD LAYOUT CHANGE	05.09.25	CP	LC
3	6807953	LIGHT SPILL REDUCTION	11.03.26	CP	LC

Project Number	501734912	Project Name	MCDONALDS MERTHYR TYDFIL
Scale & Sheet Size	1:250 @ A1	Drawing Name	PROPOSED LIGHTING LAYOUT
Sheet No	DWG 01		