

External Lighting Plan for Planning Application

The Lodge, Arborfield Court, Swallowfield Rd, Arborfield, RG2 9JS

Planning Application: 250232

Lighting assessment for the external lighting of The Lodge.

The external lighting design for The Lodge has been made with consideration for the surrounding area and wildlife, at the same time as balancing the need to be able to see whilst accessing the property.

Due to the properties location there is no light from street lighting or other properties. On dark nights there is practically no visibility, if only relying on ambient light.

Some external lighting is therefore needed to provide safe access to and from the property.

Proposal

No external lighting is proposed to the Southeast of the property as there is no access in/out of the property on this side.

On the Northeast and Northwest of the property there is only a need for minimal lighting for access in the immediate vicinity of the building. It is proposed to achieve this with narrow beam downlights mounted within the soffits; these will create a focused corridor of light against the building.

To the Southwest of the property is the main vehicle and pedestrian access to the building. This requires a larger coverage of light to ensure visibility for all access. On this side of the property the downlights will be supplemented with standard shrouded wall lights with low wattage bulbs. This will create a low intensity pool of light out from the property, though still restricting direct upward light.

Environmental impact mitigation

To reduce the impact of the lighting on wildlife and the wider environment all light fittings are selected to ensure the light is shone down, with minimal upward spill. All lights used are as low power as possible and have a colour temperature of 2700K. This keeps the light as 'warm' and natural as possible.

As well as there being no lighting to the Southeast of the property, the lights on the Northeast and Northwest of the property will be controlled by Passive IR motion sensors and time switches to reduce the time they are on to only when the area is being used.

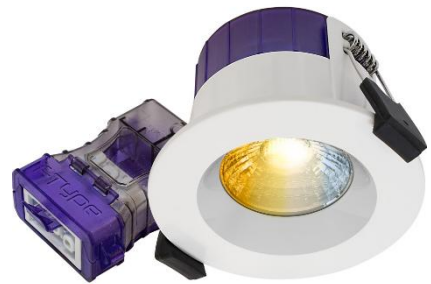
On the Southwest of the property all lights will be controlled on an automatic schedule and except for the porch lights will also have Passive IR motion sensors.

All lights are turned off overnight once all residents are home.

Lighting Fixtures

Downlights:

- Luceco F-type Ultra – 4W, 2700K, 60deg, 465lm
- Regressed fitting to reduce glare
- Power adjustable **4W** / 6W
- Colour temperature adjustable **2700K** – 6000K
- Datasheet and photometrics at end of report



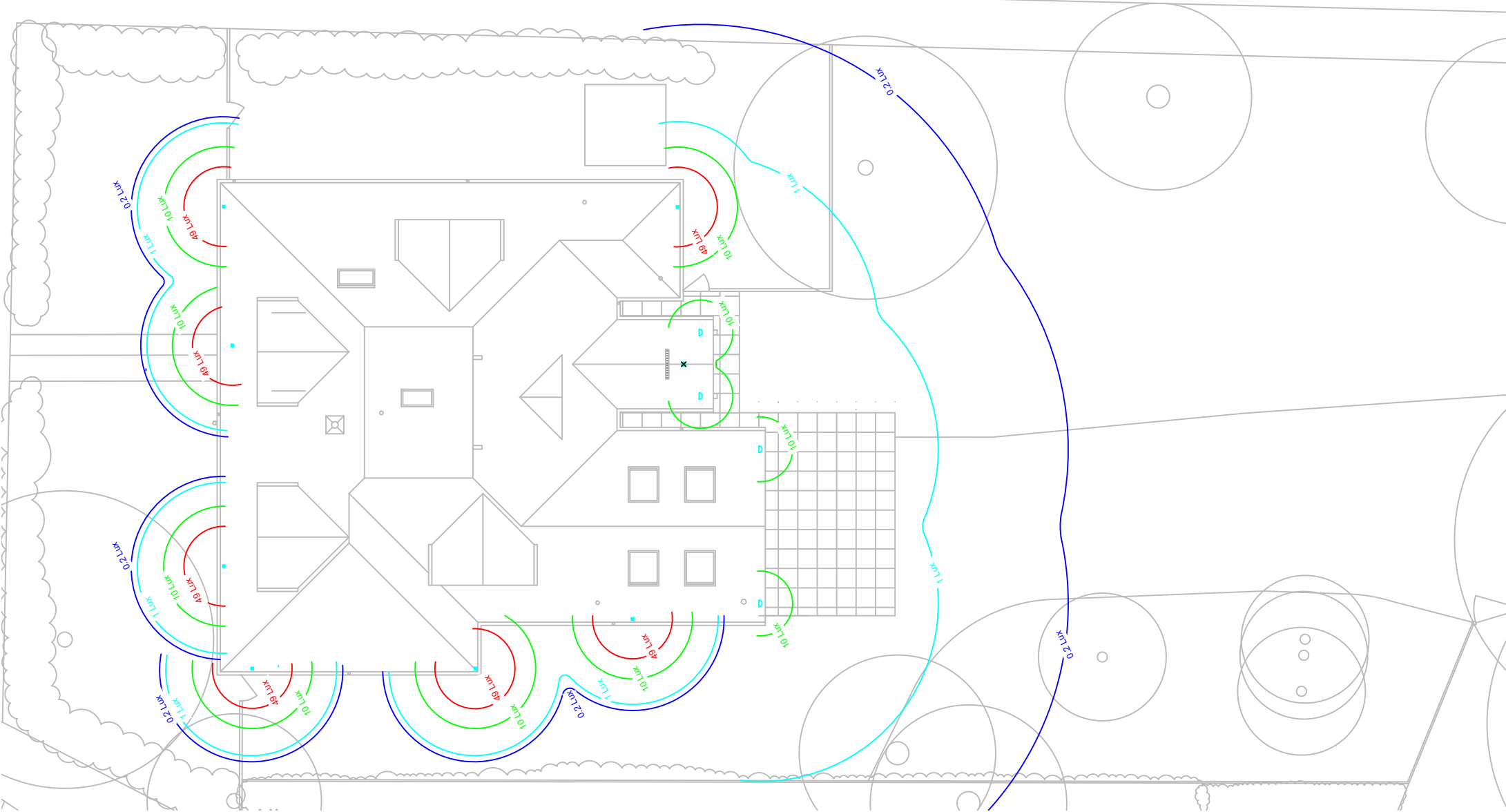
Wall and Ceiling Lamp:

- Exact fitting not selected yet but will be of this style
- Will include the cowl to limit direct upwards light
- Light bulb used in both:
 - Philips Master Glass LED bulb
 - 5.9W, 2200-2700K, 806lm
 - Datasheet and photometrics at end of report

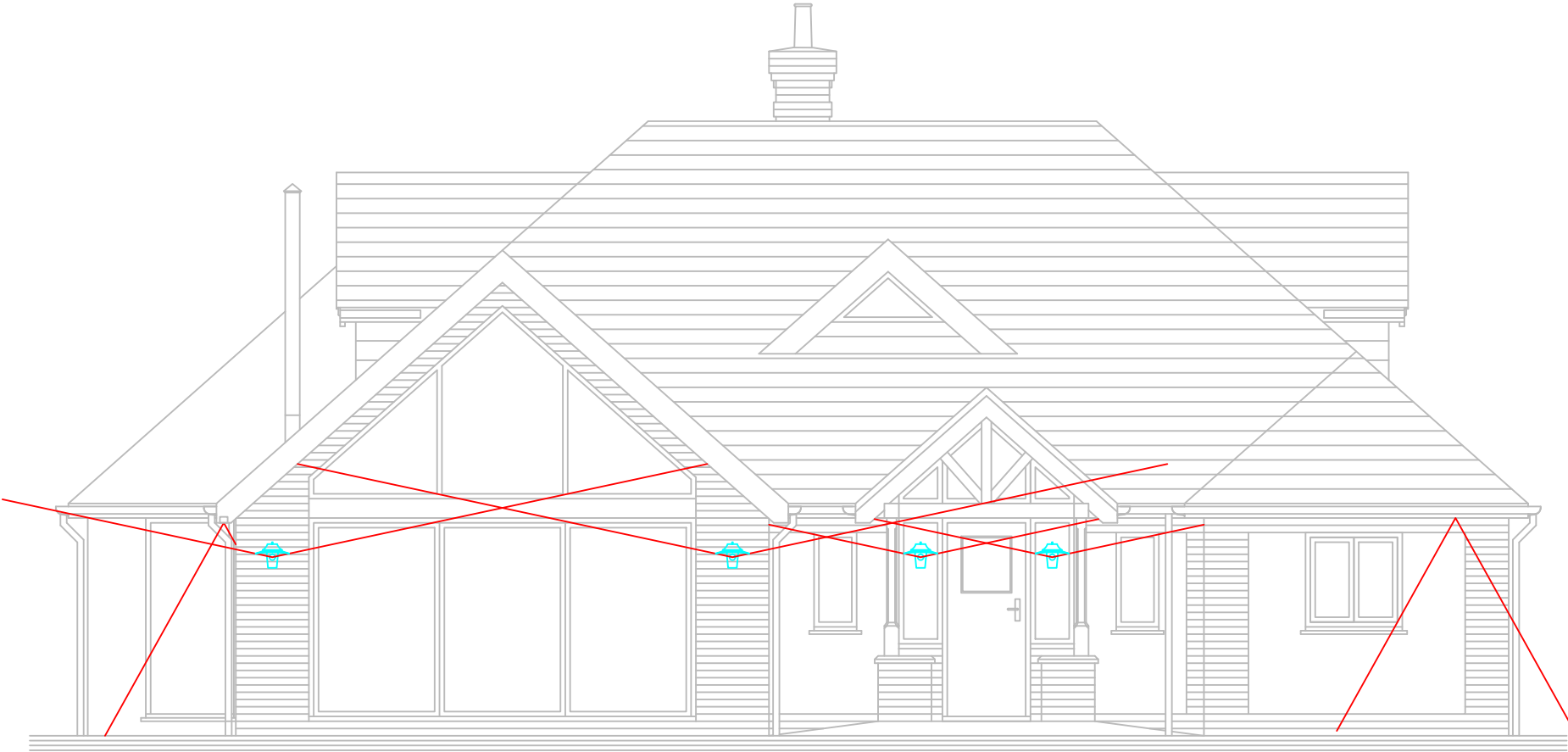


	49 Lux
	10 Lux
	1 Lux
	0.2 Lux

			
Type	Soffit Downlight	Wall lamp	Ceiling lamp
Lamp	Luceco Ftype Ultra	Philips Master Glass LED	Philips Master Glass LED
Product code	UTR6WCCT	MAS LEDBulbDT5.9 60W E27	MAS LEDBulbDT5.9 60W E27
Lamp Flux (lm)	465	806	806
Colour Temp. (K)	2700	2700	2700



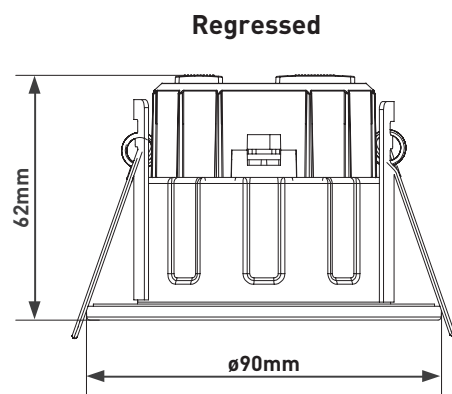
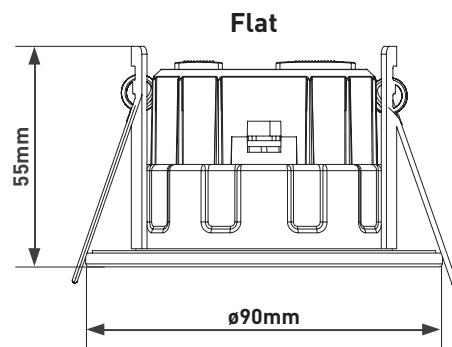
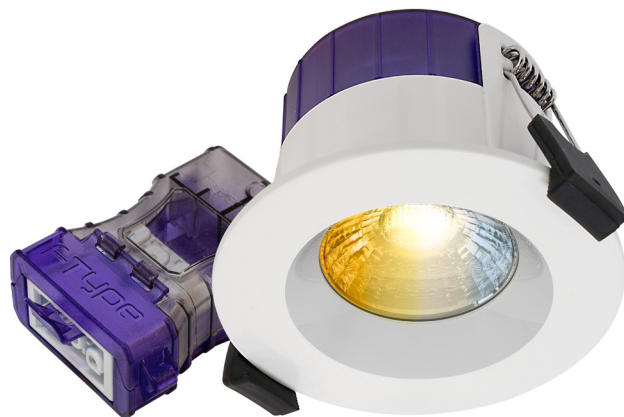
	Useful Light (Beam Angle)
	Spill



FTYPE ULTRA POWER CHANGE 4W/6W & 4COLOUR CCT FIRE RATED DOWNLIGHT & CONNECTOR

Product Features

- Power Selectable 6W/4W & Colour Selectable 2700K/3000K/4000K/6000K.
- Choose the preferred colour temperature to suit your space. For example choose a warmer white (2700K/3000K) to create a more relaxed comfortable feel. Choose a cooler white (4000K/6000K) for rooms which are more task focused.
- Patent pending toolless Easy Access ClipFit connector with true 1st/2nd Fix installation. QuickView Cable Window - check wire connections after locking lid shut. UK Patent Pending No. 2305019.8.
- Removable VDE certified push-fit terminal block improves wire access – ideal with stiff cable. 18th edition 500V insulation resistance testing compatible.
- Supplied with removable Matt White slim bezel -ideal for when decorating and painting ceilings.
- Available in Flat & Regressed in Polished Chrome, Brushed Steel & Matt Black bezel finish.



CAT NO.	WATTAGE	COLOUR CHANGE TEMPERATURE	LUMINAIRE LUMEN	USEFUL LUMENS
	4W	2700K	465 / 710lm (2700K)	372 lm (2700K)

UTR6WCCT

CAT NO.	BEZEL TYPE	LUMINAIRE LUMENS PER WATT	CRI	BEAM ANGLE	FREQUENCY (V/Hz)	CURRENT	POWER FACTOR	AMBIENT TEMP RATED LIFE (°C)
UTR6WCCT	Regressed	116 lm/W (2700K)	>80	60°	220-240 / 50-60	22mA / 30mA	>0.9	25°C

Test report

Light measurement results

Print date 4/21/2025

Measurement Conditions

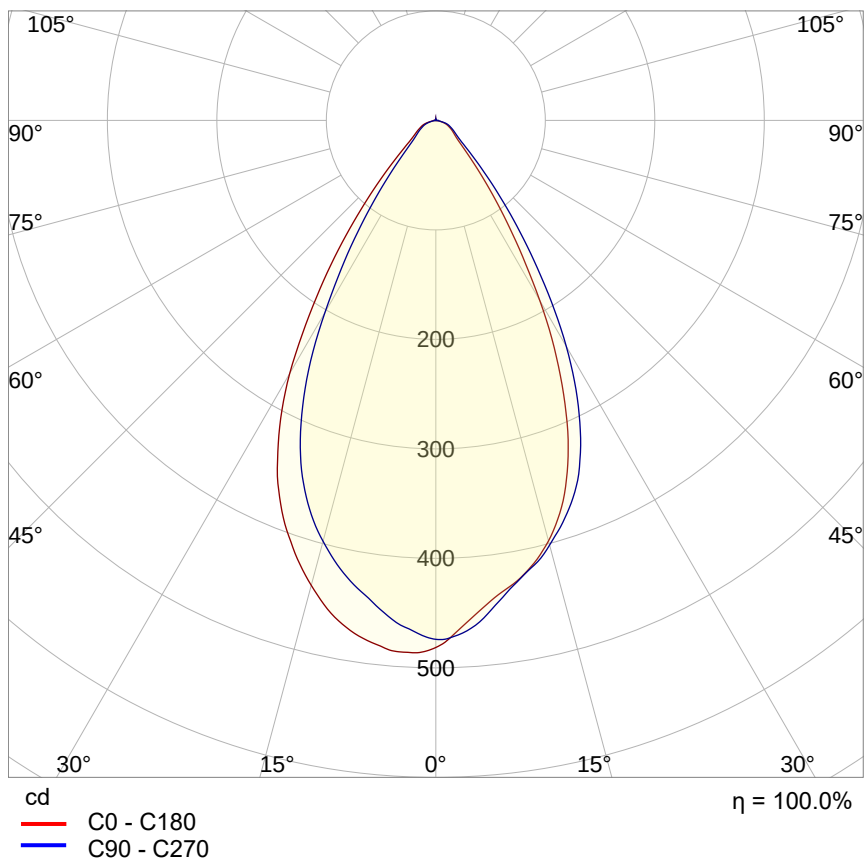
Tested c-planes	9 – distance {C_PLANES_RES}°
Tested gamma angles	181 – {H_PLANES_RES}°
Input Power	4.0 W

Tested Light Source	FType Ultra 4W 465LM 2700K
Basic Luminous Shape	SPOT
Item No.	
Manufacturer	Luceco

Main Light Measurement Results

Output – Total Lumen (Up% / Down%)	465 lm – 0.26% / 99.74%
Efficiency	116 lm/W
Peak Intensity	486 cd
Correlated Color Temperature, CCT	2700 K
Color Rendering Index	CRI 0.0

Polar light distribution diagram





MASTER Glass LED bulbs

MAS LEDBulbDT5.9-60W E27 CRI95A60CL G UK

Featuring a classic heritage design, these filament MASTER glass bulbs combine the familiar shapes of incandescent glass LED bulbs with the benefits of long-lasting LED technology. Ideal for creating a cosy atmosphere for customers, these glass LED bulbs provide excellent quality of light. MASTER glass bulbs can be dimmed for different lumen levels and colour temperatures (dimmable glass led bulbs). They also deliver significant energy savings, using 30% less energy compared to normal LED bulbs. By offering a lifetime of 25,000 hours, these dimmable glass LED bulbs also reduce maintenance costs.

Product data

General Information	
Cap base	E27
Nominal lifetime	25,000 h
Switching Cycle	20,000
Lighting Technology	LED
Flux measurement reference	Sphere
Light Technical	
Colour Code	922-927 [CCT of 2200K-2700K]
Beam angle (nom.)	300 degree(s)
Luminous Flux	806 lm
Colour designation	Warm Glow (WG)
Correlated Colour Temperature (Nom)	2200 2700 K
Luminous efficacy (rated) (nom.)	136 lm/W
Colour consistency	<6
Colour rendering index (CRI)	95
LLMF at end of nominal lifetime (nom.)	70 %

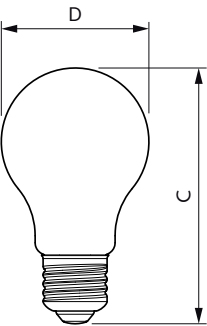
Photobiological safety according to EN 62471 RG1	
Operating and Electrical	
Input frequency	50 to 60 Hz
Power Consumption	5.9 W
Lamp current (nom.)	40 mA
Wattage equivalent	60 W
Starting time (nom.)	0.5 s
Warm-up time to 60% light	0.5 s
Power Factor (Fraction)	0.6
Voltage (nom.)	220-240 V
Temperature	
T-Case maximum (nom.)	70 °C

MASTER Glass LED bulbs

Controls and Dimming	
Dimmable	Only with specific dimmers
Mechanical and Housing	
Lamp Finish	Clear
Bulb material	Glass
Bulb shape	A60
Net Weight (Piece)	0.032 kg
Approval and Application	
Energy Efficiency Class	D
Energy consumption kWh/1,000 hours	6 kWh
EPREL Registration Number	1969959
EU RoHS compliant	Yes
EyeComfort	Yes
Flickering value (PstLM)	0.9
Stroboscopic effect	0.4
Ambient temperature range	-20 to +45 °C

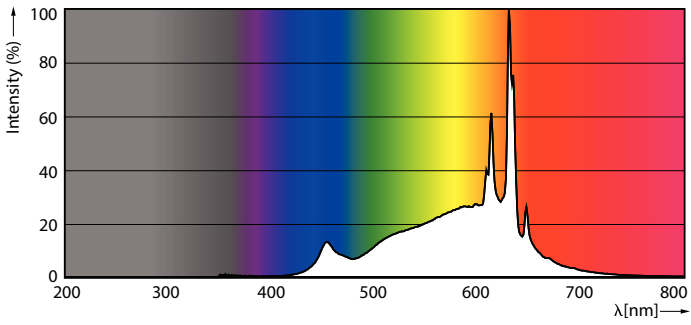
Application Conditions	
Can it be used in closed luminaires	No
Product Data	
Order product name	MAS LEDBulbDT5.9-60W E27 CRI95A60CL G UK
Full product name	MAS LEDBulbDT5.9-60W E27 CRI95A60CL G UK
Full EOC	872016931095700
Order code	31095700
Material no. (12 NC)	929003798602
Numerator – quantity per pack	1
EAN/UPC – Product/Case	8720169310957
Numerator – packs per outer box	10
EAN/UPC - Case	8720169310964

Dimensional drawing

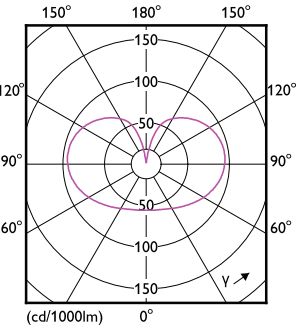


Product	D	C
MAS LEDBulbDT5.9-60W E27 CRI95A60CL G UK	60 mm	108 mm

Photometric data



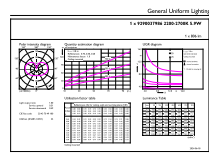
Spectral Power Distribution Colour - MAS LEDBulbDT5.9-60W E27 CRI95A60CL G UK



Light Distribution Diagram - MAS LEDBulbDT5.9-60W E27 CRI95A60CL G UK

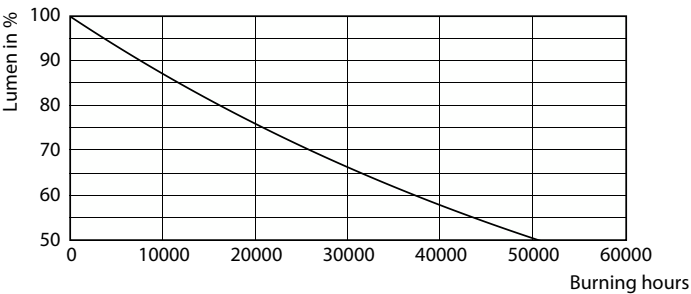
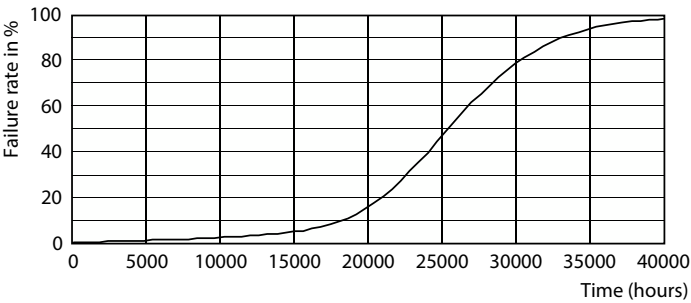
MASTER Glass LED bulbs

Photometric data



General uniform lighting - MAS LEDBulbDT5.9-60W E27 CRI95A60CL G UK

Lifetime



Life Expectancy Diagram

Lumen Maintenance Diagram - MAS LEDBulbDT5.9-60W E27 CRI95A60CL G UK

