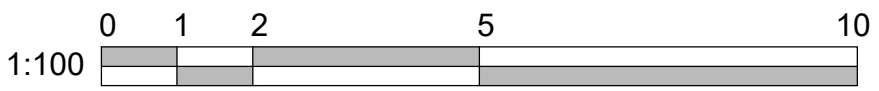
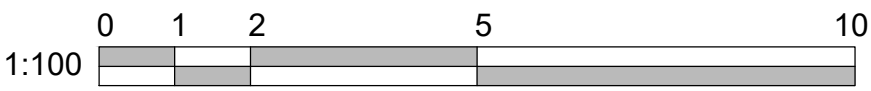




COURTYARD & GROUND FLOOR PLAN (EXTERNAL LIGHTING LAYOUT)



FIRST FLOOR PLAN ROOF TERRACE (EXTERNAL LIGHTING LAYOUT)



Notes:

do not scale:
detailed drawings and larger scale drawings take precedence. Figured dimensions only are to be taken from this drawing.

dimensions:
All building and site dimensions, levels and sewer invert levels at connection points are to be checked and verified on site by the contractor before the commencement of works. All dimensions are to be checked prior to the placement of orders for materials or the fabrication of work and any discrepancy, omission or error is to be reported to the Architect immediately for verification.

specification:
The Contractor is to comply with current Building Legislation, British Standard Specifications, Building Regulations etc. whether or not specifically stated on this drawing. This drawing must be checked against and read in conjunction with any structural or other relevant specialist and design documentation provided.

FULL PLANNING CONSENT No: C23
revisions:

PROPOSED EXTERNAL LIGHTING:

It provides full details of the proposed lighting scheme, including luminaire specifications, layout, and technical assessment demonstrating compliance with relevant guidance.

- External Lighting Details:

BEGA 22 260 to Courtyard and Roof Terrace areas and

BEGA 66 153 to Porch Entrances

A lighting layout plan has been prepared showing the location of all luminaires and adjacent buildings.

- Luminaire Specifications:

BEGA 22 260 (Wall-Mounted)

Mounted at approximate 2.2–2.5m height above finished floor level

38.5W

3530lm (3000K)/3581lm (4000K)

Asymmetrical, downward-directed distribution

Hooded design to reduce glare

99% downward light output/1% uplight

BEGA 66 153 (Ceiling-Mounted)

Mounted at existing height above finished floor level

9.5W

759lm (3000K)/767lm (4000K)

Symmetrical narrow beam (27°)

0% uplight/100% downward distribution

- Light Spill and Lux Levels:

Manufacturer photometric data has been reviewed and the lighting design has been developed to minimise light spill and glare to neighbouring properties.

This demonstrates that:

Light spill does not exceed 2 lux between 23:00–07:00, and

Light spill does not exceed 10 lux between 07:00–23:00, at site boundaries and neighbouring buildings.

- Compliance with Guidance:

The proposed lighting scheme complies with:

Institute of Lighting Professionals

Guidance Notes for the Reduction of Obtrusive Light (GN01:2011)

This is achieved through:

Downward-directed luminaires

Controlled beam angles

Minimal uplight (0–1%)

Glare reduction through hooded and narrow-beam fittings

- Glare Control:

Glare is controlled through

Use of hooded wall-mounted luminaires

Narrow beam angle (27°) at entrances

Downward-only light distribution

Careful positioning and mounting heights

- Installation and Operation:

Lighting will be installed prior to first occupation

Courtyard lighting will be surface-mounted

A no-dig installation approach will be used due to archaeological sensitivity

Lighting will be controlled by photocell and occupancy sensors to minimise unnecessary illumination

Lighting will thereafter be maintained and operated in accordance with the approved details

The scheme has been designed to provide safe and functional illumination while protecting

the amenity of neighbouring occupiers and will be installed and maintained in accordance

with the approved details.

Manufacturer photometric data for the proposed BEGA luminaires has been used within the

lighting assessment model.

The lighting has been designed to minimise light spill and glare in accordance with the principles of ILP Guidance Note GN01. The proposed lighting scheme has been carefully designed to provide safe access and security for occupants and visitors whilst minimising glare, upward light and light spill.

The scheme accords with the Institute of Lighting Professionals Guidance Notes for the Reduction of Obtrusive Light (GN01) and is not expected to adversely affect neighbouring occupiers or the character of the surrounding area.

EXTERNAL LIGHTING COURTYARD & TERRACE ROOF (BEGA 22 260):

47.24 - Technical amendments reserved

BEGA 22 260
Wall luminaire IP 65

Project - Reference number Date

Product data sheet

Product description
Luminaire made of aluminium alloy, aluminium and stainless steel
BEGA Undur® coating technology
Colour graphite or silver
Mall safety glass
Silicone gasket
Reflector made of pure anodised aluminium
2 mounting holes ø 5mm
Distance apart 240mm
2 cable entries for through-wiring of mains supply cable ø 7-10.5mm, max. 5G 1.5²
Connecting terminal and earth conductor terminal 2.5²
Complies with flicker requirements in accordance with IEC 1789
DIN IEC/TR 63158, DIN IEC/TR 61547-1
LED power supply unit
220-240 V ~, 50/60 Hz
DC 176-280 V
DALI-controllable
Number of DALI addresses: 1
Basic insulation is provided between the mains and control cables
BEGA Thermal Control®
Temporary thermal regulation to protect temperature-sensitive components without switching off the luminaire
Safety class I
Protection class IP 65
Dust-tight and protection against water jets
Impact strength IK08
Protection against mechanical impacts < 5 joule
CE - Safety mark
CE - Conformity mark
This product contains light sources of energy efficiency class(es) D

Application
Wall luminaire for glare-free lighting of walls, traffic areas and house entrances.
Very robust luminaire with excellent lighting qualities.

Lamp
Module connected wattage 35.5 W
Luminaire connected wattage 38.5 W
Module designation LED-1654/83040
Colour rendering index CRI > 80
Rated temperature T_a = 25 °C
Ambient temperature T_a = 35 °C
The colour temperature of the luminaire can be set optionally to 3000 K and 4000 K.

Lighting technology
Luminaire data for the DIALux lighting design program for outdoor lighting, street lighting and indoor lighting, as well as luminaire data in EULUMDAT and IES format are available on the BEGA website at www.bega.com.

Inrush current
Inrush current: 19.7 A / 280 µs
Maximum number of luminaires of this type per miniature circuit breaker:
B16A: 11 luminaires
B16A: 18 luminaires
C10A: 18 luminaires
C16A: 29 luminaires

Ratio of luminous flux
Luminous flux upper half-space 1 %
Luminous flux lower half-space 99 %

BUG rating according to IES TM-15-20: 2-2-1
GEN Flux Code according to EN 13032-2: 82-88-88-88-100-0-0-19-1

BEGA Constant Optics®
BEGA Constant Optics® is an efficient optical system that is virtually impervious to wear and tear. The durable materials used, including glass, pure aluminium and silicone, show no effects of ageing, even under extreme conditions like high temperatures and UV radiation.

Article No. 22 260
Colour graphite or silver
graphite - article number **A**
silver - article number **A**

Service life - Ambient temperature
Rated temperature max. T_a = 35 °C (100 %) LED psu: 50,000 h
LED module: 160,000 h (L80B50)
Ambient temperature max. T_a = 50 °C (73 %) LED psu: 50,000 h
LED module: >50,000 h (L70B50)
BEGA Thermal Control® protects temperature-sensitive luminaire components by temporarily limiting the nominal power at high temperatures.

Light distribution

BEGA Gartenbank-Lauchten KG - Postfach 31180 - 58889 Menden - info@bega.com - www.bega.com

EXTERNAL CEILING MOUNTED LIGHTING PORCH ENTRANCE (BEGA 66 153):

38.23 - Technical amendments reserved

BEGA 66 153
Compact downlight IP 65

Project - Reference number Date

Product data sheet

Application
Compact downlight with symmetrical narrow beam light distribution.

Product description
Luminaire made of aluminium alloy, aluminium and stainless steel
BEGA Undur® coating technology
Colour graphite or white
Safety glass with optical structure
Silicone gasket
Reflector surface made of pure aluminium
2 mounting holes ø 4.8mm
Distance apart 70mm
1 cable entry for mains supply cable up to ø 10.5mm
Connection terminal 2.5²
Earth conductor connection
BEGA Ultimate Driver®
Complies with flicker requirements in accordance with IEC 1789
DIN IEC/TR 63158, DIN IEC/TR 61547-1
LED power supply unit
220-240 V ~, 50/60 Hz
DC 176-284 V
BEGA Thermal Switch®
Temporary thermal shutdown to protect temperature-sensitive components
Safety class I
CE - Safety mark
CE - Conformity mark
This product contains light sources of energy efficiency class(es) D

Lamp
Module connected wattage 8.2 W
Luminaire connected wattage 9.5 W
Rated temperature T_a = 25 °C
Ambient temperature T_a = 40 °C

Inrush current
Inrush current: 11.3 A / 112 µs
Maximum number of luminaires of this type per miniature circuit breaker:
B10A: 34 luminaires
B16A: 55 luminaires
C10A: 67 luminaires
C16A: 92 luminaires

Ratio of luminous flux
Luminous flux upper half-space 0 %
Luminous flux lower half-space 100 %

BUG rating according to IES TM-15-07: 1-0-0
BUG Flux Code according to EN 13032-2: 98-100-100-100-100

BEGA Vortex Optics®
BEGA Vortex Optics® features newly developed twisted reflectors with a surface made of pure aluminium. The more intense concentration of the light enables perfect light deflection. This makes it possible to achieve optimal light distribution without artefacts. Thanks to excellent glare control, BEGA Vortex Optics® offers outstanding visual comfort. The interaction with the LED modules produces extraordinary lighting results.

Article No. 66 153
LED colour temperature optionally 3000 K or 4000 K
3000 K - Article number + **K3**
4000 K - Article number + **K4**
Colour optionally graphite or white
White - Article number + **W**

Service life - Ambient temperature
Rated temperature T_a = 25 °C LED psu: 50,000 h
LED module: 188,000 h (L80B50)
100,000 h (L90B50)
Ambient temperature max. T_a = 40 °C (100 %)
LED psu: 50,000 h
LED module: 79,000 h (L80B50)
100,000 h (L90B50)

Lighting technology
Half beam angle 27°
Luminaire data for the DIALux lighting design program for outdoor lighting, street lighting and indoor lighting, as well as luminaire data in EULUMDAT and IES format are available on our website at www.bega.com.

Light distribution

BEGA Gartenbank-Lauchten KG - Postfach 31180 - 58889 Menden - info@bega.com - www.bega.com

client:
Mowntley Group

project:
27 - 32 Market Place
Reading

description:
Ground & First Floor Plans
& Courtyard Area
External Lighting Layouts



head office:
the old stone masons, 10 st johns st,
abergavenny, monmouthshire. np7 5rt
tel: 01873 851125 fax: 01873 851127

newport:
first floor, 5 gold tops,
newport, south wales. np20 4pg
tel: 01633 245020

e-mail: info@jdwarchitects.co.uk
w: www.jdwarchitects.co.uk

drawn: scale: @A1
JC 1:100
date: sheet of:
19.01.2025

job drwg. no: jw1077-675
rev: -

This drawing is copyright of the architect and may not be reproduced without licence