

PUBLIC LIGHTING REPORT

FOR

REDROCK GLENAGEARY LTD

Project Reference:	J680
Revision Ref:	Planning
Date Issued:	28 th September 2023
Prepared by:	Ivan Daly & Paul Flanagan

1. INTRODUCTION

Red Rock Glenageary Ltd., intend to apply to Dún Laoghaire Rathdown County Council for a Large-Scale Residential Development on a site of 0.74 ha at Junction of Sallynoggin Road and Glenageary Avenue, and Glenageary Roundabout, Glenageary, Co. Dublin.

The proposed development will consist of a new neighbourhood centre to include apartments, commercial and retail units, public plaza, childcare facility and all associated residential amenity spaces.

The proposed development includes:

- a) Construction of 138 no. residential apartment units (37 no. 1-bedroom units, 68 no. 2-bedroom (4 person units), 6 no. 2-bedroom (3 person units) and 27 no. 3-bedroom units) in 2 no. interlinked blocks at third to fifth floor level (ranging in height from four to seven storeys over basement level) consisting of:
 - i. Block A (5-6 storeys) comprising 41 no. apartments (8 no. 1-bedroom units, 17 no. 2-bedroom (4 person) units, 2 no. 2-bedroom (3 person) units and 14 no. 3-bedroom units).
 - ii. Block B (4-7 storeys) containing 97 no. apartments (29 no. 1-bedroom units, 51 no. 2-bedroom (4 person) units, 4 no. 2-bedroom (3 person) units and 13 no. 3-bedroom units).

Each residential unit has associated private open space in the form of a balcony/terrace.

- b) Residential amenity areas of approx. 342 sqm are proposed in the form of resident support services, concierge services, co-working space, social/activity spaces and gym at the ground floor level of Blocks A and B.
- c) Open Space (approx. 2,806.6 sqm) is proposed in the form of (a) public open space (c. 1,848.4 sqm) in the form of a public plaza accommodating outdoor seating, planting, pedestrian footpaths and cyclist links and (b) residential/communal open space (approx. 958.2 sqm) including c. 750.6 sqm at surface level (incl. playground), roof terrace at fifth floor level of link between Blocks A and Block B (c. 151 sqm) and roof terrace (c. 56.6 sqm) at fifth floor level of Block B. 1.8 m opaque screens are proposed around both roof gardens.
- d) Commercial and retail uses at ground floor level of Blocks A and B (c. 996 sqm) to include (a) 2 no. restaurants (c. 267 sqm and 295 sqm) in Block A, (b) a retail – clothing unit (c. 142 sqm), (c) retail - florist unit (c. 66 sqm), (d) retail - pharmacy unit (c. 126 sqm) and (e) hairdresser unit (c. 100 sqm) all in Block B.
- e) Childcare facility (c. 263 sqm) with dedicated open space and children's play area (c. 39.5 sqm) at ground floor level of Block B.
- f) Basement areas (total approx. 3,411 sqm) are proposed on one level and include car and bicycle parking areas, waste management and plant areas. An ESB substation (approx. 31.7 sqm) is proposed at surface level at the top of the basement ramp

- accessed off Glenageary Avenue. Commercial bin stores (c. 47.9 sqm) are proposed to be located at ground floor level of both Blocks A and B.
- g) A total of 80 no. car parking spaces at basement level are proposed to include 3 no. accessible parking spaces, 2 no. GoCar spaces and 17 no. EV charging spaces. 5 no. motorcycle parking spaces are also proposed at basement level.
 - h) A set down area/loading bay is proposed at surface level at Sallynoggin Road and 2 no. set down areas/loading bays including 1 no. accessible car parking space are proposed at surface level at Glenageary Avenue.
 - i) A total of 310 no. bicycle parking spaces to include 254 no. bicycle parking spaces at basement level including 10 no. cargo bicycle spaces and 56 no. bicycle parking spaces including 16 no. cargo bicycle spaces at surface level.
 - j) The development shall be served via a new vehicular access point to the basement level from Glenageary Avenue. New pedestrian and cyclist access points will be provided onto Sallynoggin Road and Glenageary Avenue from the site.
 - k) Removal of existing cycle path and footpath and dropped kerb pedestrian crossing at Glenageary Avenue to be reinstated by soft landscaping and replaced by a new shared cyclist and pedestrian raised table crossing point located on Glenageary Avenue linking to the existing signalised crossing on the R118. Existing 1.2 m pedestrian crossing on Glenageary Avenue to be widened to 2 m.
 - l) Emergency services/servicing access is proposed from Sallynoggin Road and Glenageary Avenue.
 - m) All associated site and infrastructural works include provision for water services; foul and surface water drainage and connections; attenuation proposal; permeable paving; all landscaping works; green roofs; roof plant room and general plant areas; photovoltaic panels; landscaped boundary treatment; footpaths; public lighting; and electrical services.

2. EXECUTIVE SUMMARY

This report was prepared in accordance with the document 'Public Lighting Installations in Residential and Industrial Areas (Guidance Document – February 2015)' to ensure the development will be provided with adequate lighting to the standards of Dun Laoghaire Rathdown County Council.

Design of the public lighting is based on the current standards for road lighting Class P4 of IS EN 13201-2:2015 and BS 5489-1: 2020 for paths (5.0 lux average, 1.0 lux minimum).

The lighting design complies with the above requirements and detailed output is on the following pages:

DATE: 28 September 2023

PROJECT NAME: Glenageary Gate



Glenageary Gate Residential Development,
Glenageary, Sallynoggin, Dublin

IS EN 13201-2:2015 / BS 5489-1:2020
Pathways - Class P4

Outdoor Lighting Report

Based on:
Lumen Output at 100,000 hours
Spot Lamp Replacement
Normal Environment
6 Years Cleaning Cycle
Ground is Level

Layout Report

General Data

Dimensions in Metres Angles in Degrees

Calculation Grids

ID	Grid Name	X	Y	X' Length	Y' Length	X' Spacing	Y' Spacing
1	Pathways	-28.38	-12.68	149.22	140.87	1.49	1.50
2	Under Arch	60.90	61.18	8.36	16.84	1.39	1.40

Luminaires

Luminaire A Data

Supplier	
Type	Veelite Quad Series 19w LED Symmetric
Lamp(s)	8LED 3000K
Lamp Flux (klm)	1.85
File Name	5QDA06LGA.ies
Maintenance Factor	0.80
Imax70,80,90(cd/klm)	375.5, 40.5, 0.0
No. in Project	5

Luminaire B Data

Supplier	
Type	Veelite Quad Series 26w LED Street Optic R03
Lamp(s)	16LED 3000K with Internal Black Shield
Lamp Flux (klm)	2.59
File Name	City Streetlight 36w 16LED 4K - R03 Optic with Black Shield.IES
Maintenance Factor	0.80
Imax70,80,90(cd/klm)	518.1, 10.5, 0.4
No. in Project	8

Luminaire C Data

Supplier	
Type	Veelite Spia Canopy 18w LED 58° Beam
Lamp(s)	LED 3000K
Lamp Flux (klm)	2.17
File Name	GH5317.BUFT300.ies
Maintenance Factor	0.80
Imax70,80,90(cd/klm)	2.2, 0.4, 0.0
No. in Project	3

Luminaire D Data

Supplier	
Type	Veelite LED Bollard 18w LED Symmetric
Lamp(s)	4 x4LED 3000K
Lamp Flux (klm)	1.75
File Name	5BLE00315 - LED Bollard 4 x 4LED T4B - 18W Symmetric.ies
Maintenance Factor	0.80
Imax70,80,90(cd/klm)	450.8, 92.4, 21.5
No. in Project	9

Luminaire E Data

Supplier	
Type	Veelite LED Bollard 6w LED Asymmetric
Lamp(s)	1 x 4LED 3000K
Lamp Flux (klm)	0.46
File Name	5BLE00305 - LED Bollard 1 x 4LED 6W Asymmetric XW Optic.ies
Maintenance Factor	0.80
Imax70,80,90(cd/klm)	895.2, 629.1, 39.2
No. in Project	2

Layout

ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Target X	Target Y	Target Z
1	A	-0.00	72.96	6.00	118.00	0.00	0.00	0.00			
2	B	95.93	31.47	6.00	358.00	0.00	0.00	0.00			
3	A	62.10	20.52	6.00	119.00	0.00	0.00	0.00			
4	B	21.06	85.53	6.00	117.00	0.00	0.00	0.00			
5	A	97.12	54.96	6.00	294.00	0.00	0.00	0.00			
6	B	59.59	37.10	6.00	300.00	0.00	0.00	0.00			
7	B	94.27	16.90	6.00	272.00	0.00	0.00	0.00			
8	B	58.63	88.43	6.00	34.00	0.00	0.00	0.00			
9	C	56.97	75.81	6.80	219.00	0.00	0.00	0.00			
10	C	59.99	70.79	6.80	219.00	0.00	0.00	0.00			
11	C	63.20	65.68	6.80	219.00	0.00	0.00	0.00			
12	A	77.85	70.07	6.00	67.00	0.00	0.00	0.00			
13	B	25.84	31.12	6.00	214.00	0.00	0.00	0.00			
14	A	11.95	59.00	6.00	145.00	0.00	0.00	0.00			
15	B	36.42	18.34	6.00	299.00	0.00	0.00	0.00			
16	B	46.95	100.50	6.00	117.00	0.00	0.00	0.00			
17	D	26.74	55.48	1.00	33.00	0.00	0.00	0.00			
18	D	30.06	62.70	1.00	33.00	0.00	0.00	0.00			
19	D	39.45	61.69	1.00	9.00	0.00	0.00	0.00			
20	D	42.04	69.72	1.00	33.00	0.00	0.00	0.00			
21	D	50.72	74.35	1.00	35.00	0.00	0.00	0.00			
22	D	48.05	61.77	1.00	33.00	0.00	0.00	0.00			
23	D	29.04	47.02	1.00	33.00	0.00	0.00	0.00			
24	E	37.75	50.83	1.00	300.00	0.00	0.00	0.00			
25	E	46.90	56.27	1.00	306.00	0.00	0.00	0.00			
26	D	57.31	62.34	1.00	33.00	0.00	0.00	0.00			
27	D	21.74	45.39	1.00	33.00	0.00	0.00	0.00			

Horizontal Illuminance (lux)

Pathways



Results

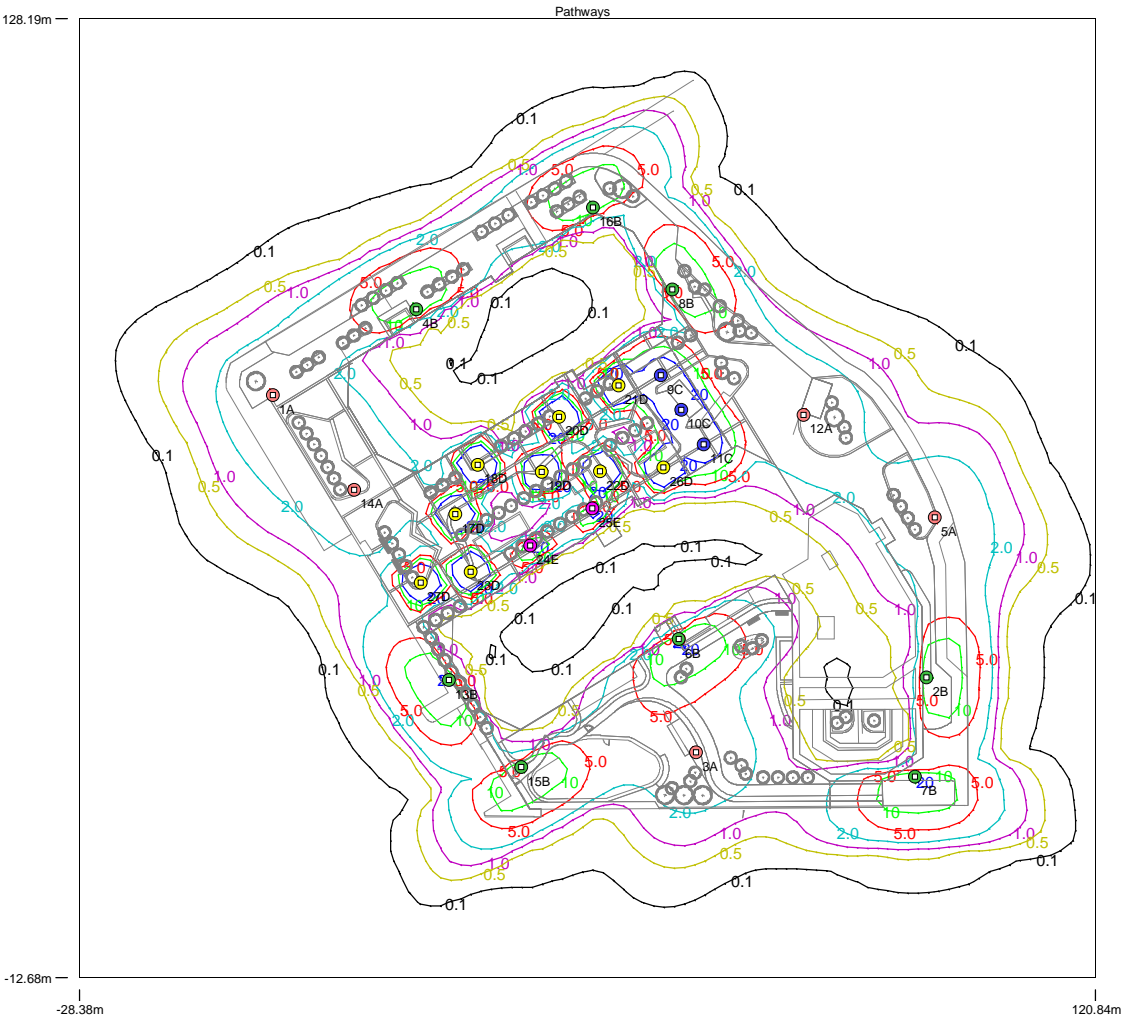
Eav	7.19
Emin	1.03
Emax	84.99
Emin/Emax	0.01
Emin/Eav	0.14

Horizontal Illuminance (lux)**Results**

Eav	26.16
Emin	11.84
Emax	40.35
Emin/Emax	0.29
Emin/Eav	0.45

Horizontal Illuminance (lux)

Pathways



Results

Eav	7.19
Emin	1.03
Emax	84.99
Emin/Emax	0.01
Emin/Eav	0.14



Quad Series

External lighting



High performance luminaire for carpark, roadway and pathway lighting.

Construction: Die cast Aluminium. IP66. IK09.

Lens: 4mm tempered glass lens.

Installation: Post-Top. D60/76mm spigot as standard.

Finish: Grey RAL 9006 as standard. Other colours on request.

Maintenance: Driver and LEDs accessible for maintenance and replacement.

LED: 10w-134w LED. 4000K CRI>70 as standard. 3000K or other CCT on request. Symmetric optics as standard, street/asymmetric options on request.

LED Lifetime: L90 B10 > 100,000 hours @25°C.

Driver: 220-240V AC 50/60 Hz. 700 mA as standard (other on request). Expected lifetime (<10% failures) 80,000 hours.



Options: Photocell, Various Optics, DALI, Dimming, other RAL colours on request. Emergency (up to 102w).

Main Surge Protection: 10 kV device included as standard.

Manufactured: Ireland.

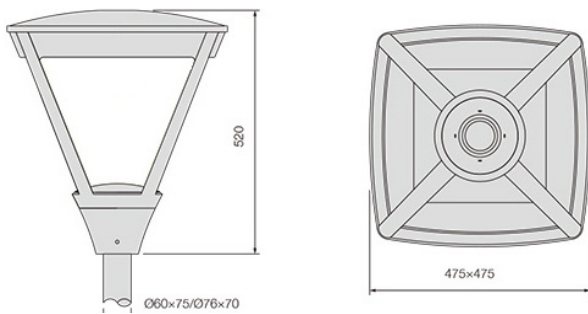
Product Compliance: EN 60598, CE.



Veelite



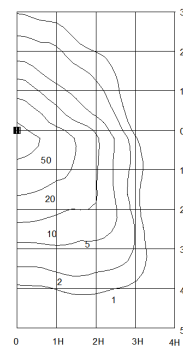
DIMENSIONS



Weight: 14kg
EPA: 0.11m²

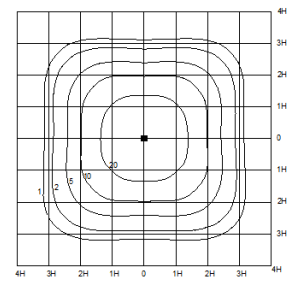
APPLICATION GUIDE

Quad
134w Forward Throw B 4000K
6m Height
Contours in Lux
M. Factor = 0.90



APPLICATION GUIDE

Quad
134w Symmetric 4000K
6m Height
Contours in Lux
M. Factor = 0.90



ORDERING CODE

Wattage	LED	Code	Details	Lumens*
10w	8LED	5QDA04LGC	Quad Series Post-Top, Symmetric 4000K including 350mA Driver	1178 lm
14w	8LED	5QDA04LGB	Quad Series Post-Top, Symmetric 4000K including 500mA Driver	1613 lm
19w	8LED	5QDA04LGA	Quad Series Post-Top, Symmetric 4000K including 700mA Driver	2193 lm
26w	16LED	5QDA06LGA	Quad Series Post-Top, Symmetric 4000K including 500mA Driver	3290 lm
36w	16LED	5QDA08LGA	Quad Series Post-Top, Symmetric 4000K including 700mA Driver	4386 lm
52w	32LED	5QDA10LGA	Quad Series Post-Top, Symmetric 4000K including 500mA Driver	6579 lm
68w	32LED	5QDA12LGA	Quad Series Post-Top, Symmetric 4000K including 700mA Driver	8772 lm
102w	48LED	5QDA16LGA	Quad Series Post-Top, Symmetric 4000K including 700mA Driver	13158 lm
134w	64LED	5QDA18LGA	Quad Series Post-Top, Symmetric 4000K including 700mA Driver	17544 lm

* Luminaire lumen output, and will vary slightly depending on the optic used. Data shown for standard symmetric optic.

OPTIONS

RAL: Pls Specify
PC: Mini Photocell
DALI: DALI Dimmable
1-10V: 1-10V Dimmable
D4i: D4i Driver
CLO: Constant Lumen Output
PRO: Programmed Dimming
FTA: Forward Throw A Optic
FTB: Forward Throw B Optic
R03: Street Optic R03
2.7K: 2700K Warm White
3K: 3000K Warm White
EM: Emergency (up to 102w)



Spia Canopy Series



Ceiling recessed LED fitting for canopy lighting.

Construction: Die-cast aluminium housing, with stainless steel trim.

Size 1, 2, 3 - IP67, IK07

Size 4, 5 - IP65, IK10

Lens: Tempered glass lens.

Size 1 - 8mm

Size 2, 3 - 5mm

Size 4, 5 - 12mm

Installation: Ceiling recessed.

Finish: Stainless steel trim as standard.
Painted on request.

LED: 6w - 32w LED. 4K as standard. 3K on request.

Driver: Internal or remote (see ordering guide).

Options: Round or Square Trim, 3K option, DALI.

Wall and ground versions also available - see separate leaflets.

Manufactured: EU.

Product Compliance: EN 60598, CE.



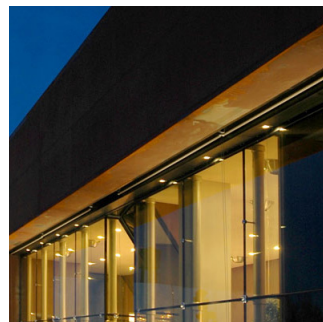
Size 1 round trim



Size 2 & 3 round trim



Size 4 & 5 round trim



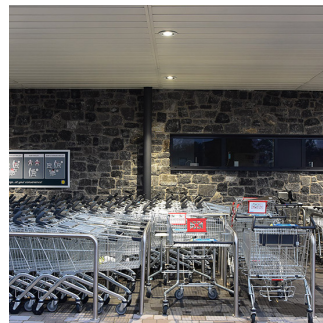
Size 1 square trim



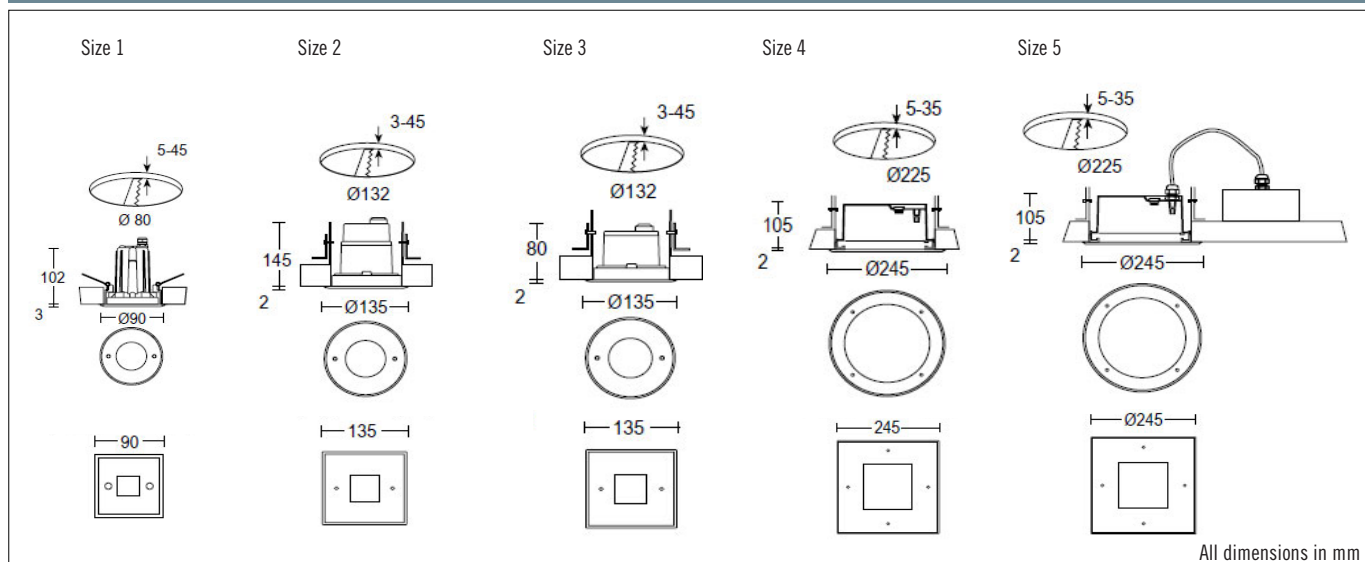
Size 2 & 3 square trim



Size 4 & 5 square trim



DIMENSIONS



ORDERING CODES

Wattage	Type	Size	Code - Round Trim	Code - Square Trim	Beam	Details	+Remote Driver**	Lumens*
6w	LED	1	G5955.AHMT400	G5947.ETMT400	40°	Micro Spia, 4K	GAC021	877 lm
9w	LED	1	G5955.CAMT400	G5947.CAMT400	40°	Micro Spia, 4K	GAC083	1218 lm
6.5w	LED	2	G6621.AHFT400	G6623.AHFT400	58°	Midi Spia, 4K, Internal Driver	-	918 lm
18w	LED	3	G6624.BUFT400	G6625.BUFT400	58°	Midi Spia, 4K, Remote Driver	GAC207	2205 lm
12w	LED	4	G5317.BRFT400	G5309.BRFT400	58°	Spia, 4K, Internal Driver	-	1573 lm
18w	LED	4	G5317.BUFT400	G5309.BUFT400	58°	Spia, 4K, Internal Driver	-	2205 lm
26w	LED	4	G5317.CGFT400	G5309.CGFT400	58°	Spia, 4K, Internal Driver	-	3012 lm
32w	LED	5	G5317.ECFT400	G5309.ECFT400	58°	Spia, 4K, incl Remote Driver	-	3781 lm

*Source lumens

**Please specify whether IP20 or IP67 driver required

Options

3K: 3000K, Warm White

DALI: DALI on request

Further info on request · email: info@veelite.com · www.veelite.com

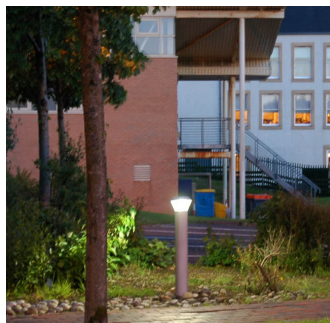
Specifications may change without prior notification. Ref: 949

Veelite



LED Bollard

External lighting



LED Bollard offered in various heights, with internal motion sensor options. Suitable for paths, gardens or plaza areas.

Construction: Cast Aluminium Head, IP66, IK10. Extruded Aluminium Shaft.
1m high as standard. Other heights, up to 2.3m, or rooted version on request.

Lens: Clear Polycarbonate Lens.

Installation: Flanged as standard.

Finish: Grey (RAL 9006) as standard. Other colours on request.

LED: 4-16 LED. Neutral white 4000K as standard, 3000K or other CRI on request. Symmetric or asymmetric options. L80 B10 >100,000 hours @ 25°C.

LED Driver:
220-240V 50/60 Hz

Operating temperatures: -20 to 40°C.

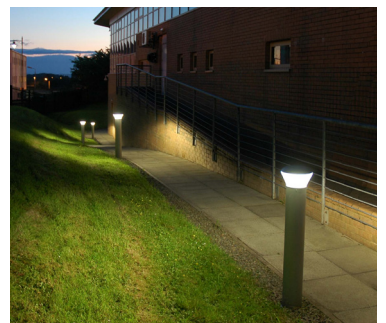


Options: Internal Sensor Control, Emergency, dimmable (1-10V), Hi-Low*, DALI, Rooted/Flanged, Symmetric/Asymmetric, Different Heights.

* Hi-Low: Occupancy sensor triggers full power light for preset delay time, then switches to low power mode (10% 20%, 30% or 50% factory selectable).

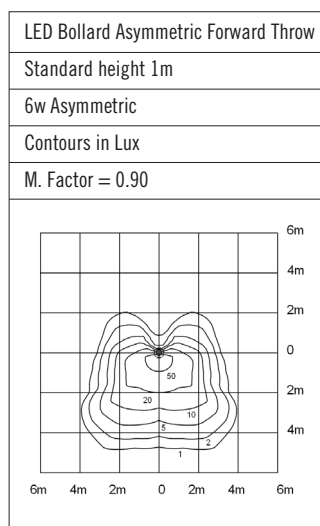
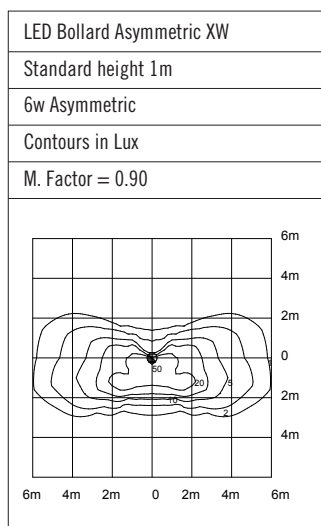
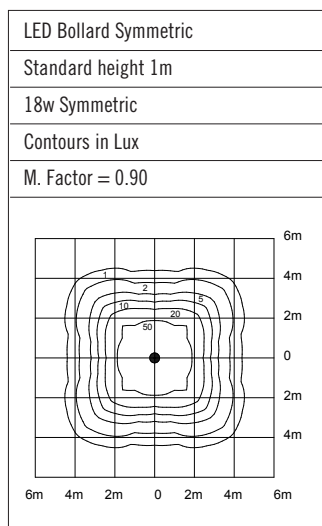
Manufactured: Ireland.

Product Compliance: EN 60598, CE.

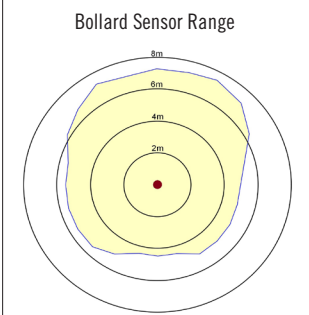


Veelite

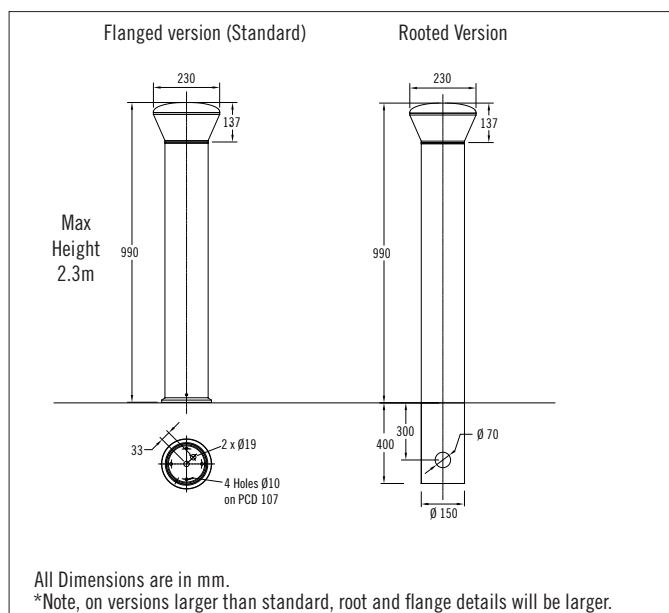
APPLICATION GUIDE



Sensor detection pattern -
factory selectable sensitivity
10%, 30%, 50%, 75% or 100%



DIMENSIONS



ORDERING CODE

Wattage	Lamp	Symmetric	Asymmetric	Details	Lumens
6w	4 LED	-	5BLE00305	1m high, flanged, asymmetric XW, 350mA driver.	498
6w	4 LED	-	5BLE00306	1m high, flanged, asymmetric forward throw, 350mA driver.	539
10w	4 LED	-	5BLE00310	1m high, flanged, asymmetric XW, 700mA driver.	935
10w	4 LED	-	5BLE00311	1m high, flanged, asymmetric forward throw, 700mA driver.	1012
18w	16 LED	5BLE00315	-	1m high, flanged, symmetric, clear lens, 350mA driver.	1897
36w	16LED	5BLE00335	-	1m high, flanged, symmetric, clear lens, 700mA driver.	3562

OPTIONS

RAL: Pls specify
HGT: Pls specify Height
RTD: Rooted Version
SEN: Motion Sensor
DIFF: Diffused Lens
DALI: Dali
HL: Hi/Low
EM: Emergency

*Note, this bollard was significantly revised in 2019 and again in 2020 and differs from earlier versions supplied.
If you need to match to the older LED bollards - Please contact us for further details.