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THIS DRAWING TO BE READ IN CONJUNCTION WITH THE DESIGNERS SPECIFICATION.
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NOTES :

LEGEND :

Lighting Key

● Urbis Schreder AXIA2.1 5167 16 Nichia NVSL219CT
c/w Dusk to Dawn photocell mounted on 6m
Galvanised steel Hexagonal columns

Beam Aiming Target

□ Photometric Centre

Results - Horizontal Illuminance (lux)

Eav= 5.08
Emin= 0.76
Emax= 12.14
Emin/Emax= 0.06
Emin/Eav= 0.15

P05	18.12.19	ISSUED FOR PLANNING - BACKGROUND UPDATED.	JS	FF
P04	02.12.19	ISSUED FOR PLANNING - BACKGROUND UPDATED.	JS	FF
P03	14.11.19	ISSUED FOR PLANNING - BACKGROUND UPDATED.	PD	FF
P02	26.08.19	ISSUED FOR PLANNING	PD	FF
P01	23.08.19	ISSUED FOR PLANNING	PD	FF
REV	DATE	DESCRIPTION	BY	APP

PROJECT: BALLINCOLLIG HOUSING DEVELOPMENT

TITLE:

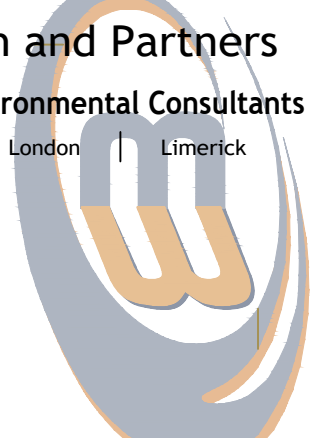
SITE LIGHTING LAYOUT

CLIENT:

CORK CITY COUNCIL



Malachy Walsh and Partners
Engineering and Environmental Consultants
Cork | Tralee | London | Limerick



The Elm Suite
Loughmore Centre
Raheen Business Park
Limerick
V94 R578
Tel : +353 (0)6 480164
E-mail : limerick@mwp.ie

DRAWN:	PD	CHECKED:	FF	APPROVED:	FF
DATE:	19.09.19	SCALE @ A1:	1:500		
PROJECT NUMBER:	19649	DRAWING STATUS:	D2		

DRAWING NUMBER: 19649-MWP- 01 -00-DR-E-9100 REV P05

Ballincollig Housing External Stairs

Fagerhult Lighting Ltd:
F1 Calmount Park:
Ballymount:
Dublin 12:

Date: 05.12.2019
Operator: Ronan Lowry



Fagerhult Lighting Ltd

F1 Calmount Park, Ballymount, Dublin 12

Operator Ronan Lowry

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Fagerhult Lighting Ltd

F1 Calmount Park, Ballymount, Dublin 12

Operator Ronan Lowry

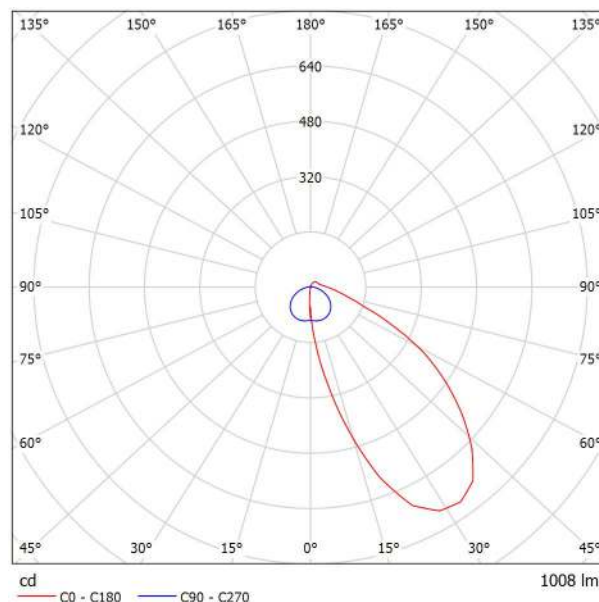
Telephone 01 4260200

Fax

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WHITECROFT K6H44KHB KOLO IP65 HOOD / Luminaire Data Sheet

Luminous emittance 1:



Luminaire classification according to CIE: 93

CIE flux code: 39 76 94 93 100

Surface mounted circular IP65 LED bulkhead luminaire in 400mm diameter.
Polycarbonate opal diffuser. Supplied with trim ring –
as Whitecroft Lighting KOLO IP65 HOOD

Due to missing symmetry properties, no UGR table
can be displayed for this luminaire.



Fagerhult Lighting Ltd

F1 Calmount Park, Ballymount, Dublin 12

Operator Ronan Lowry

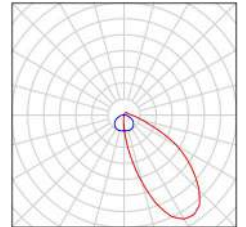
Telephone 01 4260200

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e-Mail ronan.lowry@fagerhult.ie

Exterior Scene 1 / Luminaire parts list

3 Pieces WHITECROFT K6H44KHB KOLO IP65 HOOD
Article No.: K6H44KHB
Luminous flux (Luminaire): 1008 lm
Luminous flux (Lamps): 1008 lm
Luminaire Wattage: 14.2 W
Luminaire classification according to CIE: 93
CIE flux code: 39 76 94 93 100
Fitting: 1 x K6H44KHB (Correction Factor 1.000).





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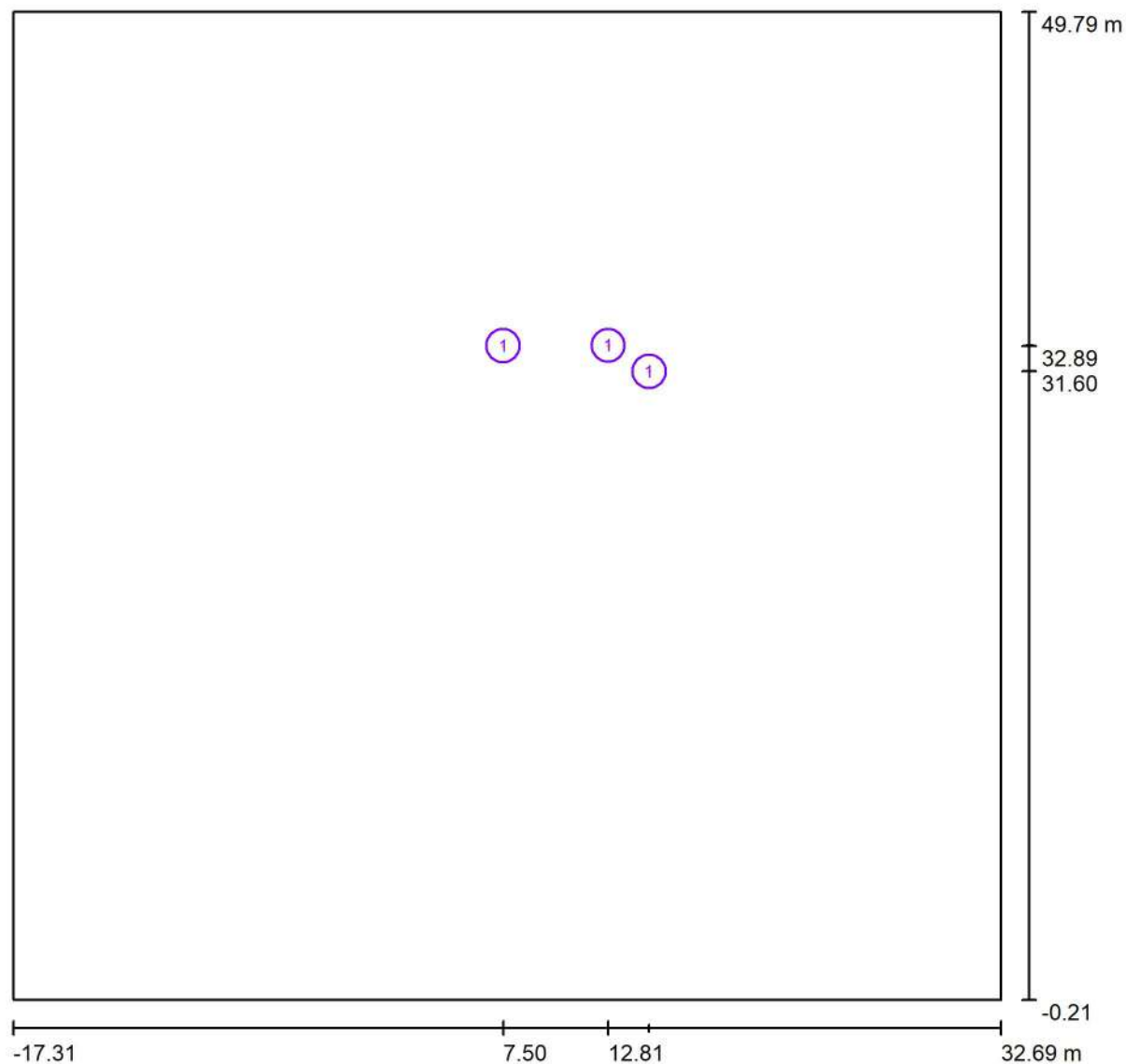
F1 Calmount Park, Ballymount, Dublin 12

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Exterior Scene 1 / Luminaires (layout plan)

Scale 1 : 358

Luminaire Parts List

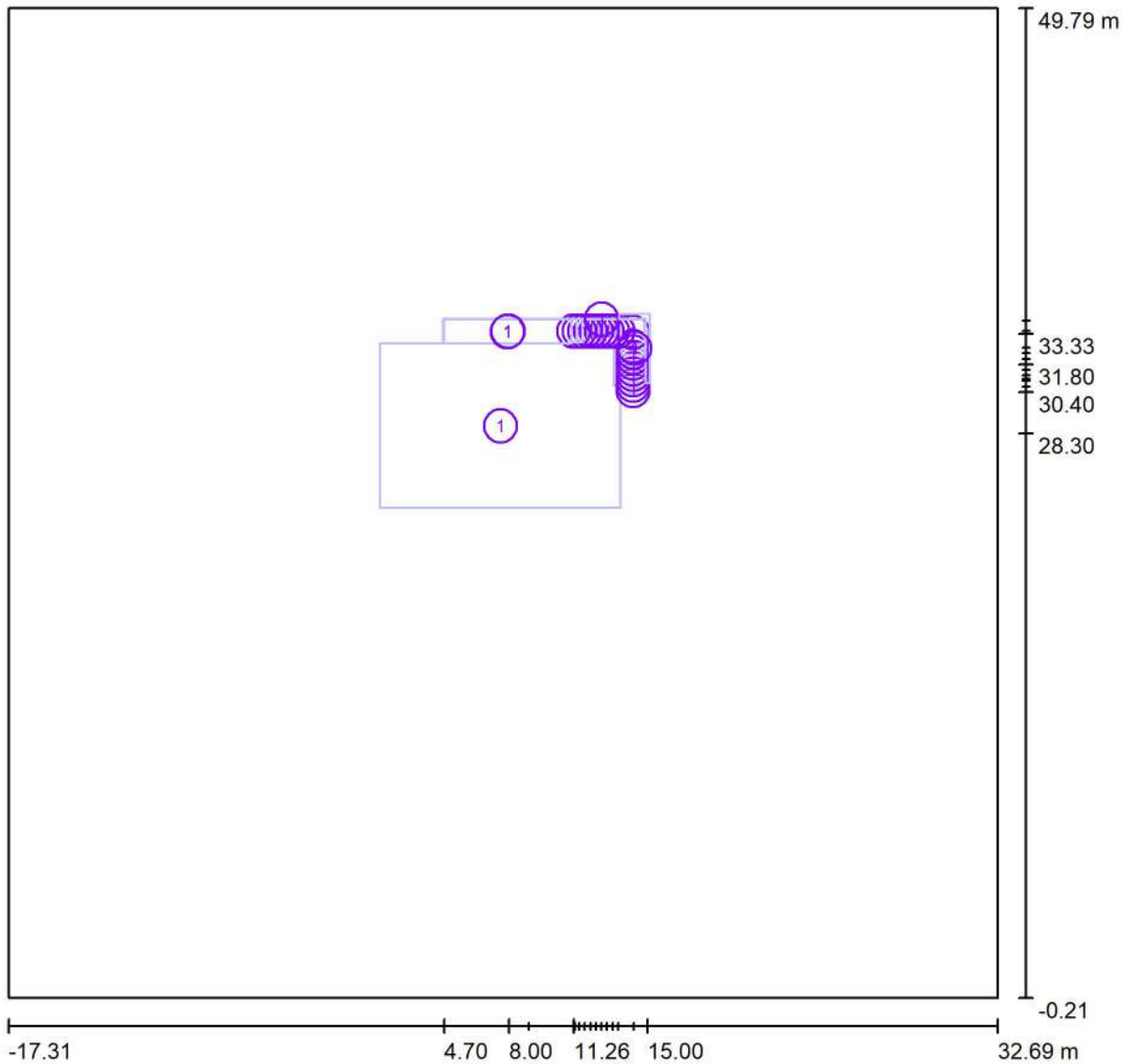
No.	Pieces	Designation
1	3	WHITECROFT K6H44KHB KOLO IP65 HOOD



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Exterior Scene 1 / Objects (layout plan)



Scale 1 : 358

Object parts list

No.	Pieces	Designation
1	24	Extrusion Volume

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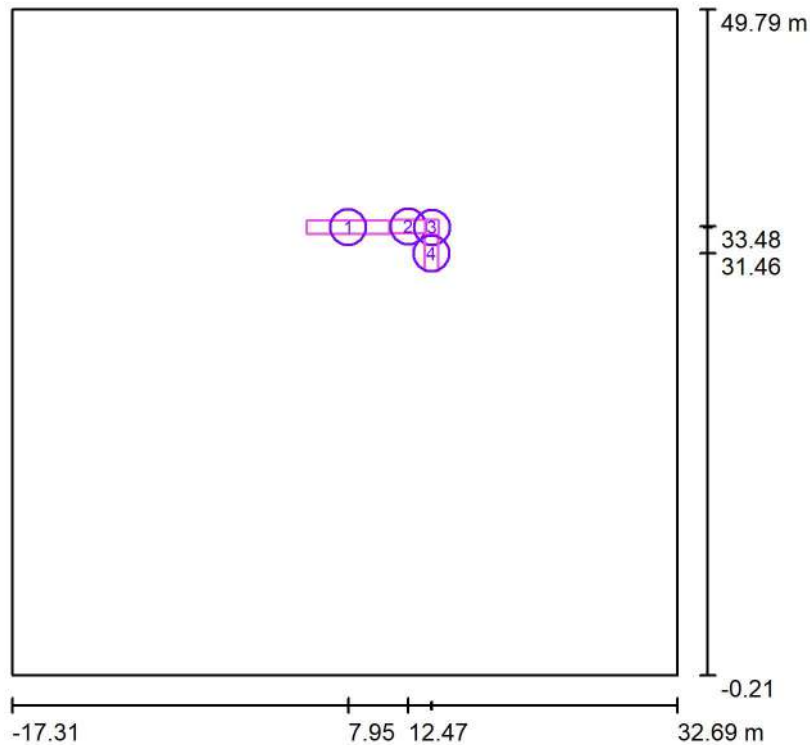
F1 Calmount Park, Ballymount, Dublin 12

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Exterior Scene 1 / Calculation surfaces (results overview)

Scale 1 : 569

Calculation Surface List

No.	Designation	Type	Grid	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0	E_{min} / E_{max}
1	Landing	perpendicular	128 x 32	54	3.70	177	0.068	0.021
2	Stairs	perpendicular	64 x 32	99	11	235	0.108	0.045
3	Half Landing	perpendicular	32 x 32	40	24	66	0.596	0.358
4	Stairs	perpendicular	32 x 64	105	9.47	279	0.090	0.034

Summary of Results

Type	Quantity	Average [lx]	Min [lx]	Max [lx]	u_0	E_{min} / E_{max}
perpendicular	4	76	3.70	279	0.05	0.01



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Exterior Scene 1 / 3D Rendering



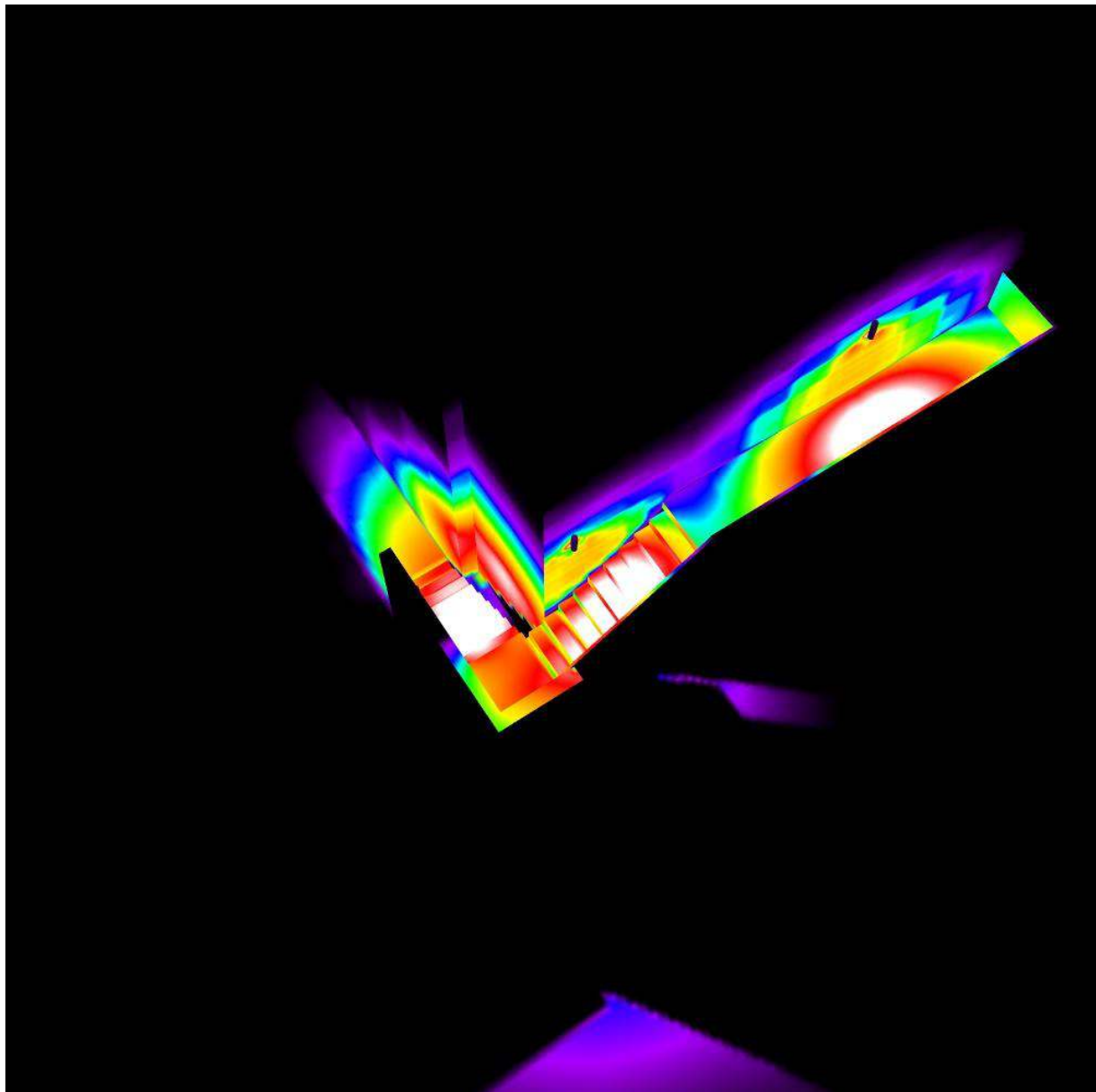


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Exterior Scene 1 / False Colour Rendering



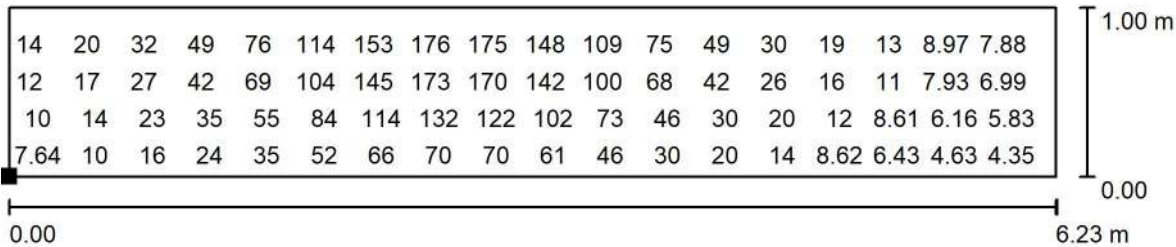
1 3 5 7 10 15 25 50 100 lx



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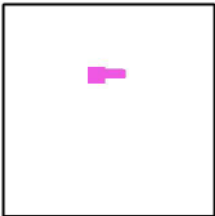
Exterior Scene 1 / Landing / Value Chart (E, Perpendicular)



Values in Lux, Scale 1 : 45

Not all calculated values could be displayed.

Position of surface in external scene:
Marked point:
(4.837 m, 32.939 m, 4.015 m)



Grid: 128 x 32 Points

E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0	E_{min} / E_{max}
54	3.70	177	0.068	0.021

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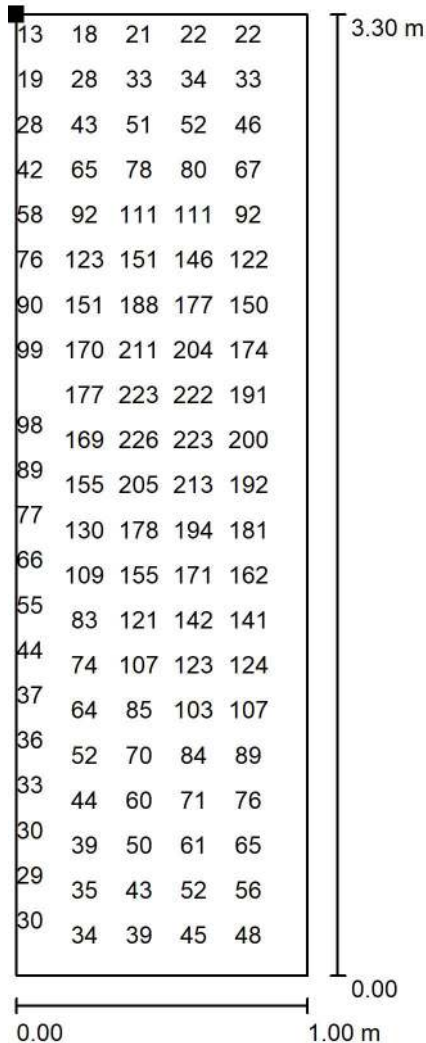
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Exterior Scene 1 / Stairs / Value Chart (E, Perpendicular)

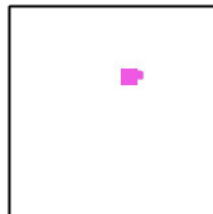
Values in Lux, Scale 1 : 26

Not all calculated values could be displayed.

Position of surface in external scene:

Marked point:

(11.124 m, 32.982 m, 4.026 m)



Grid: 64 x 32 Points

 E_{av} [lx]
99

 E_{min} [lx]
11

 E_{max} [lx]
235

 u_0
0.108

 E_{min} / E_{max}
0.045

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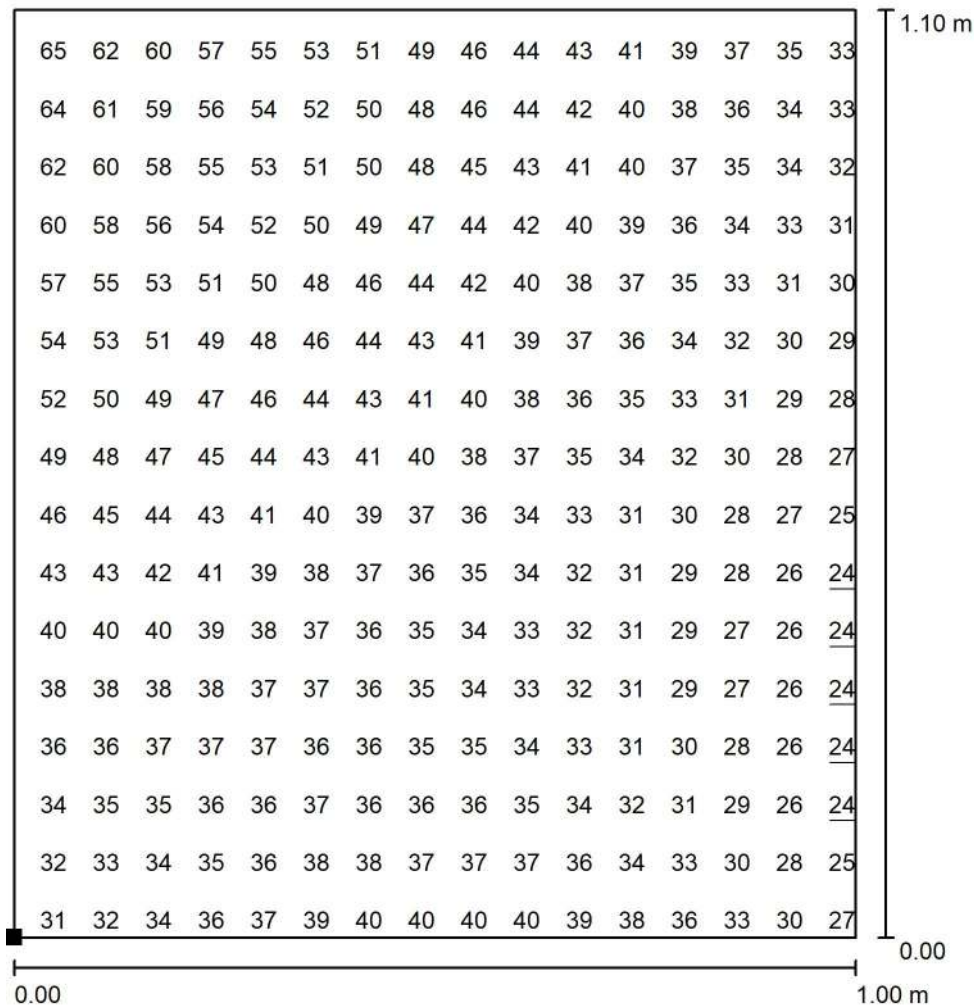
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Exterior Scene 1 / Half Landing / Value Chart (E, Perpendicular)

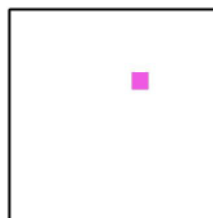
Values in Lux, Scale 1 : 9

Not all calculated values could be displayed.

Position of surface in external scene:

Marked point:

(13.747 m, 32.859 m, 2.014 m)



Grid: 32 x 32 Points

 E_{av} [lx]
40

 E_{min} [lx]
24

 E_{max} [lx]
66

 u_0
0.596

 E_{min} / E_{max}
0.358

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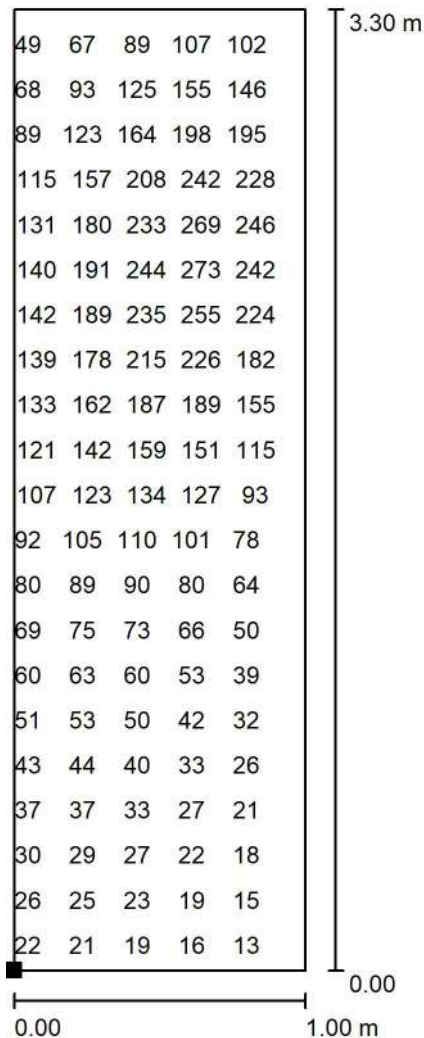
F1 Calmount Park, Ballymount, Dublin 12

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Exterior Scene 1 / Stairs / Value Chart (E, Perpendicular)

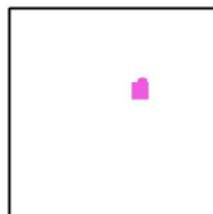
Values in Lux, Scale 1 : 26

Not all calculated values could be displayed.

Position of surface in external scene:

Marked point:

(13.700 m, 30.133 m, 0.085 m)



Grid: 32 x 64 Points

 E_{av} [lx]
105

 E_{min} [lx]
9.47

 E_{max} [lx]
279

 u_0
0.090

 E_{min} / E_{max}
0.034

Ballincollig Housing

Fagerhult Lighting Ltd:
F1 Calmount Park:
Ballymount:
Dublin 12:

Date: 05.12.2019
Operator: Ronan Lowry



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F1 Calmount Park, Ballymount, Dublin 12

Operator Ronan Lowry

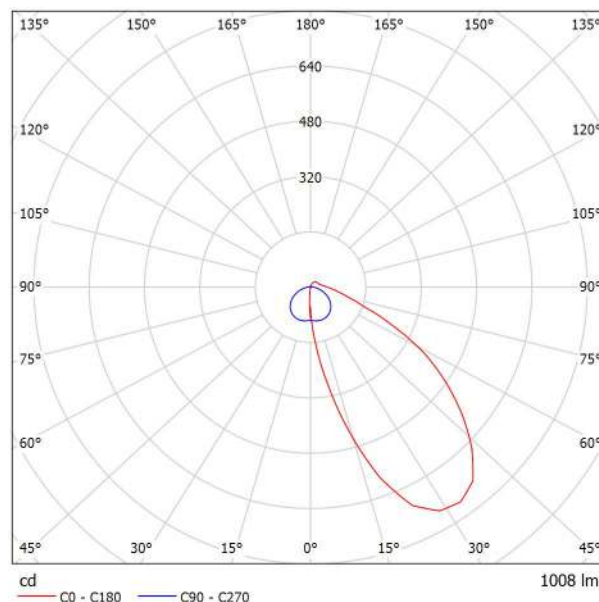
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WHITECROFT K6H44KHB KOLO IP65 HOOD / Luminaire Data Sheet

Luminous emittance 1:



Luminaire classification according to CIE: 93

CIE flux code: 39 76 94 93 100

Surface mounted circular IP65 LED bulkhead luminaire in 400mm diameter.
Polycarbonate opal diffuser. Supplied with trim ring –
as Whitecroft Lighting KOLO IP65 HOOD

Due to missing symmetry properties, no UGR table
can be displayed for this luminaire.

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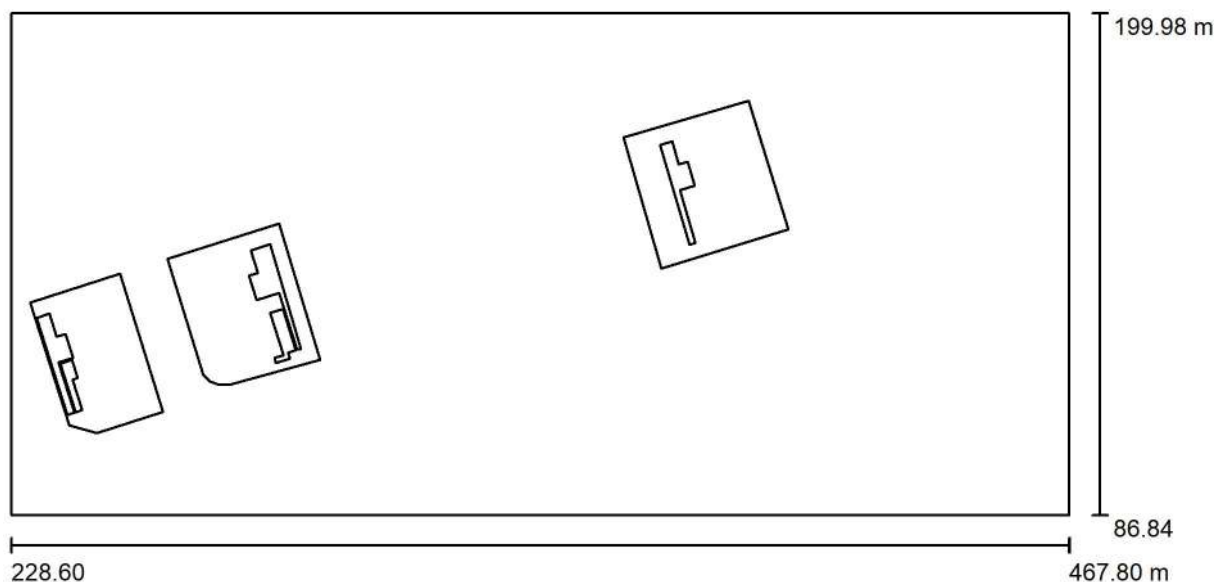
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Exterior Scene 1 / Planning data

Maintenance factor: 0.80, ULR (Upward Light Ratio): 2.5%

Scale 1:1711

Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	20	WHITECROFT K6H44KHB KOLO IP65 HOOD (1.000)	1008	1008	14.2
Total:			20160	20160	284.0



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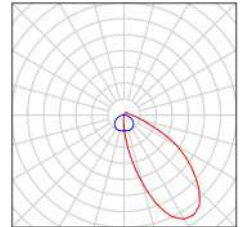
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Exterior Scene 1 / Luminaire parts list

20 Pieces WHITECROFT K6H44KHB KOLO IP65 HOOD
Article No.: K6H44KHB
Luminous flux (Luminaire): 1008 lm
Luminous flux (Lamps): 1008 lm
Luminaire Wattage: 14.2 W
Luminaire classification according to CIE: 93
CIE flux code: 39 76 94 93 100
Fitting: 1 x K6H44KHB (Correction Factor 1.000).



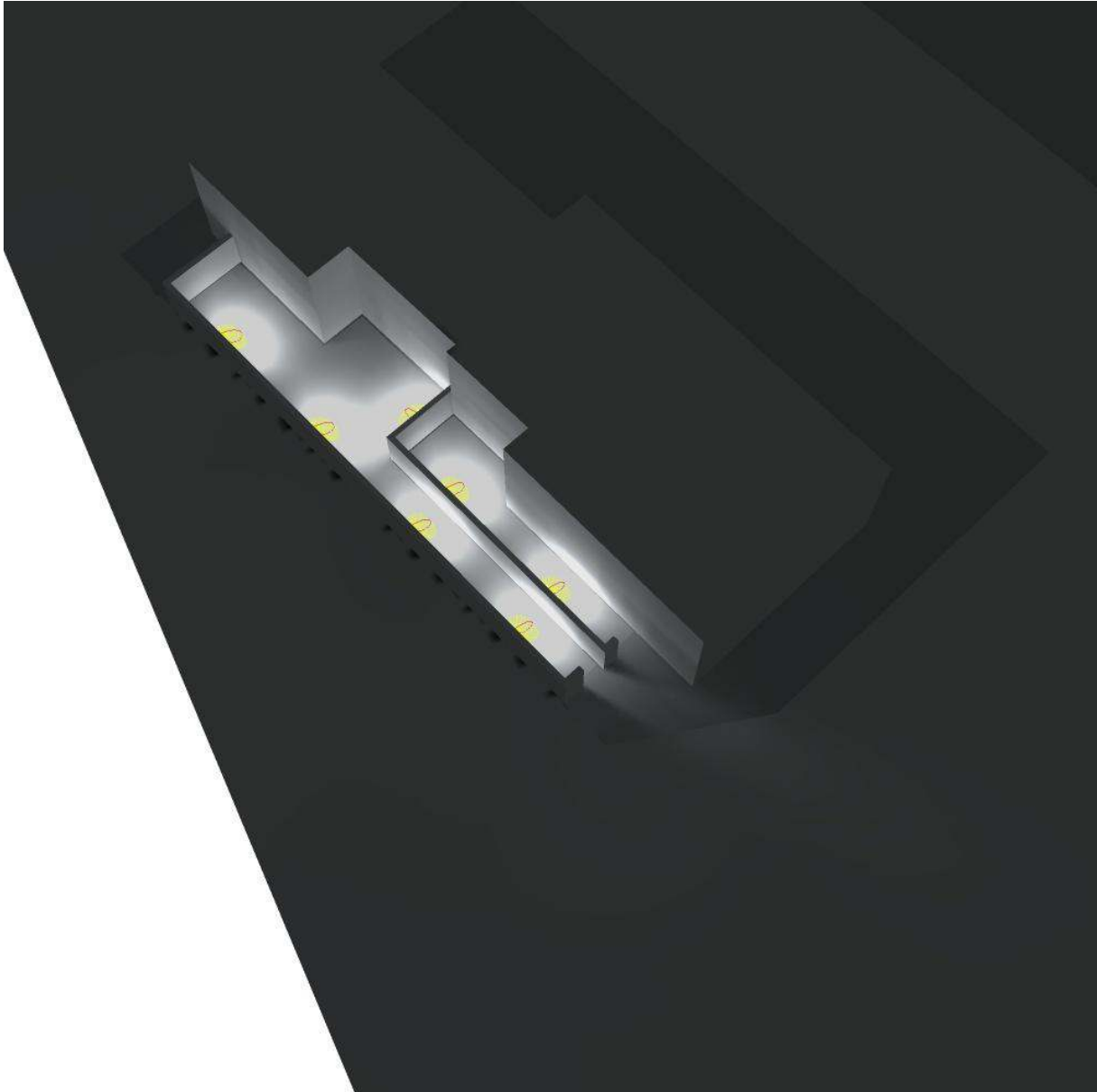


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Exterior Scene 1 / 3D Rendering



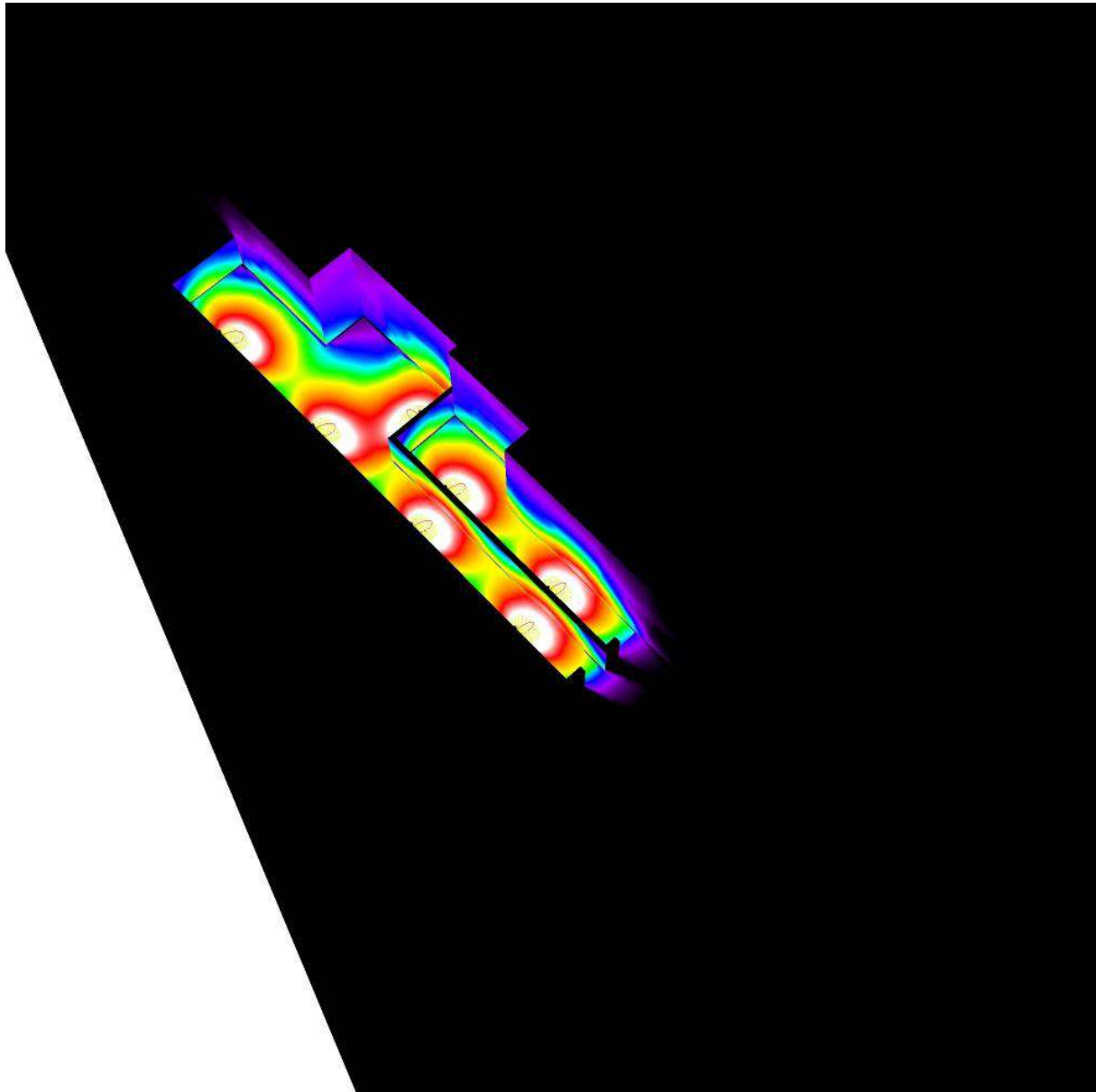


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Exterior Scene 1 / False Colour Rendering



1

3

5

7

10

15

25

50

100

lx

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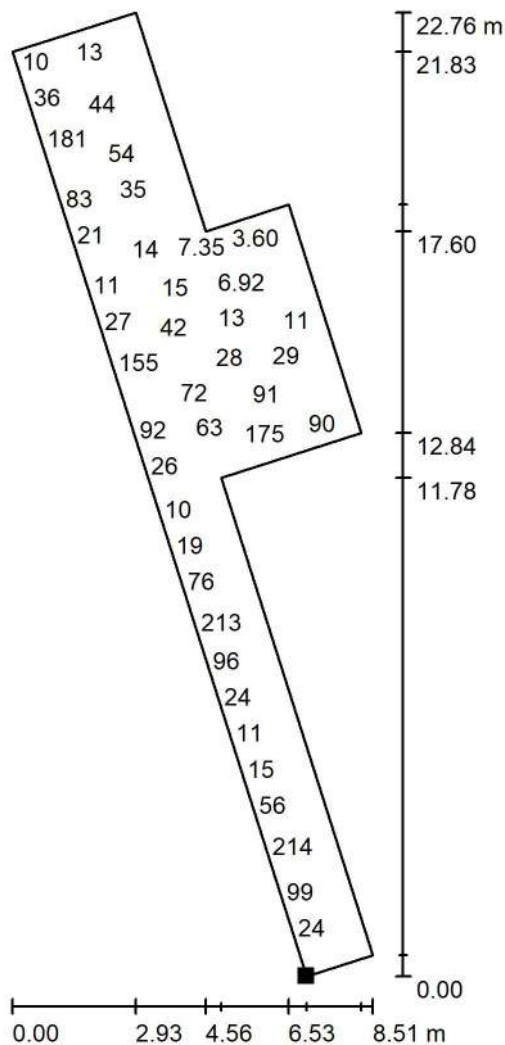
F1 Calmount Park, Ballymount, Dublin 12

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Exterior Scene 1 / Rear 44-46 / Surface 1 / Value Chart (E)

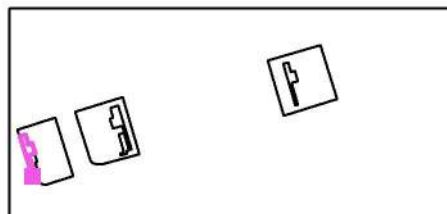
Values in Lux, Scale 1 : 179

Not all calculated values could be displayed.

Position of surface in external scene:

Marked point:

(241.279 m, 109.487 m, 0.000 m)



Grid: 128 x 64 Points

 E_{av} [lx]
49

 E_{min} [lx]
2.11

 E_{max} [lx]
218

 u_0
0.044

 E_{min} / E_{max}
0.010

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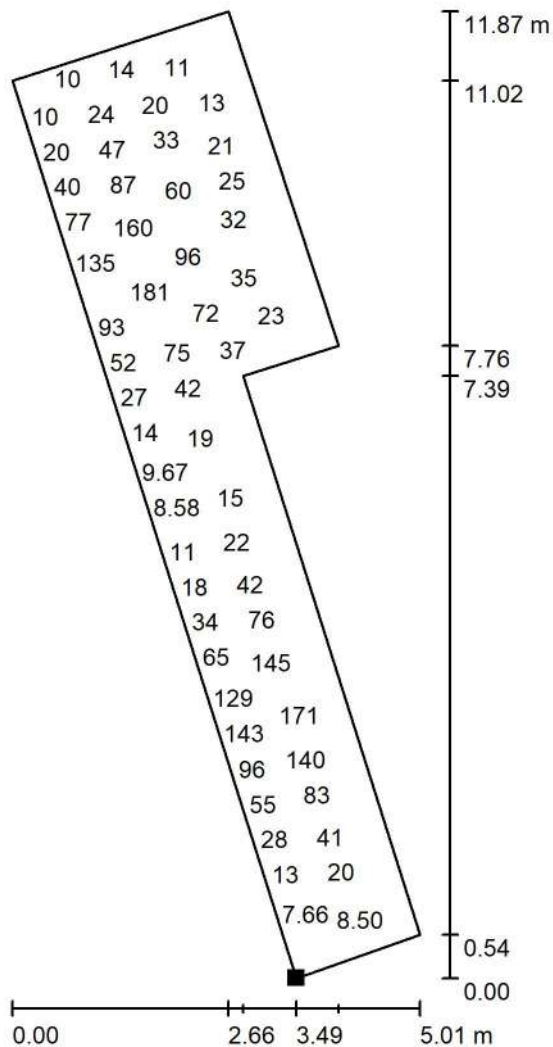
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Exterior Scene 1 / Rear 41-43 / Surface 1 / Value Chart (E)

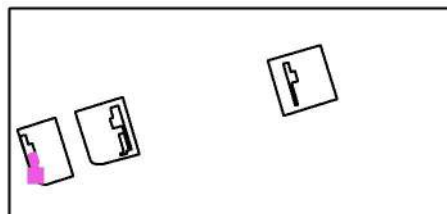
Values in Lux, Scale 1 : 93

Not all calculated values could be displayed.

Position of surface in external scene:

Marked point:

(243.168 m, 110.032 m, 0.000 m)



Grid: 128 x 64 Points

 E_{av} [lx]
50

 E_{min} [lx]
3.03

 E_{max} [lx]
216

 u_0
0.061

 E_{min} / E_{max}
0.014

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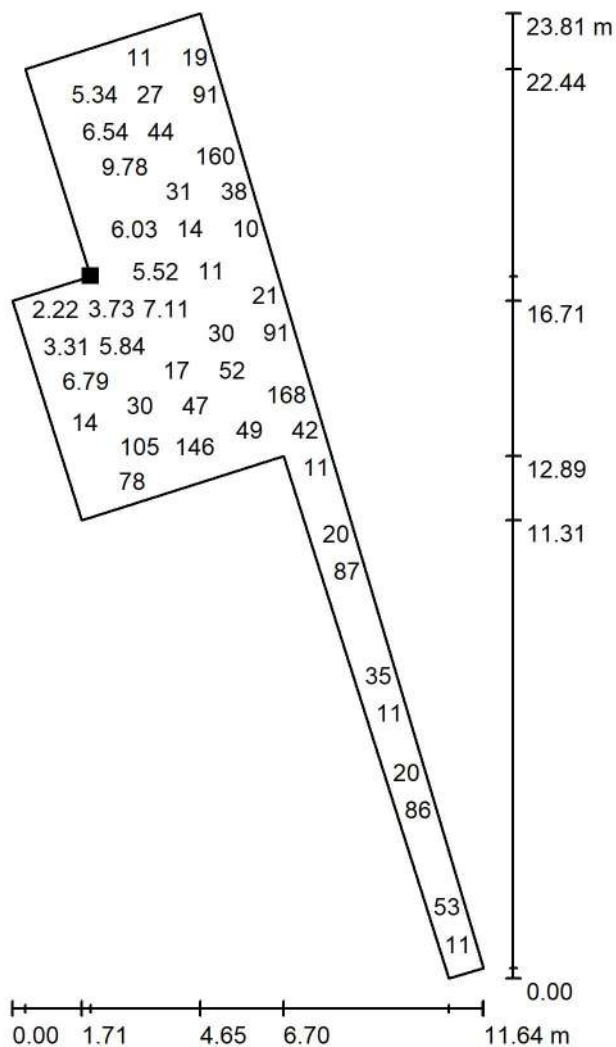
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Exterior Scene 1 / Rear 47-49 / Surface 1 / Value Chart (E)

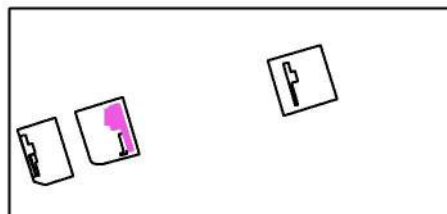
Values in Lux, Scale 1 : 187

Not all calculated values could be displayed.

Position of surface in external scene:

Marked point:

(284.325 m, 141.445 m, 0.000 m)



Grid: 128 x 64 Points

 E_{av} [lx]
39

 E_{min} [lx]
1.53

 E_{max} [lx]
231

 u_0
0.039

 E_{min} / E_{max}
0.007

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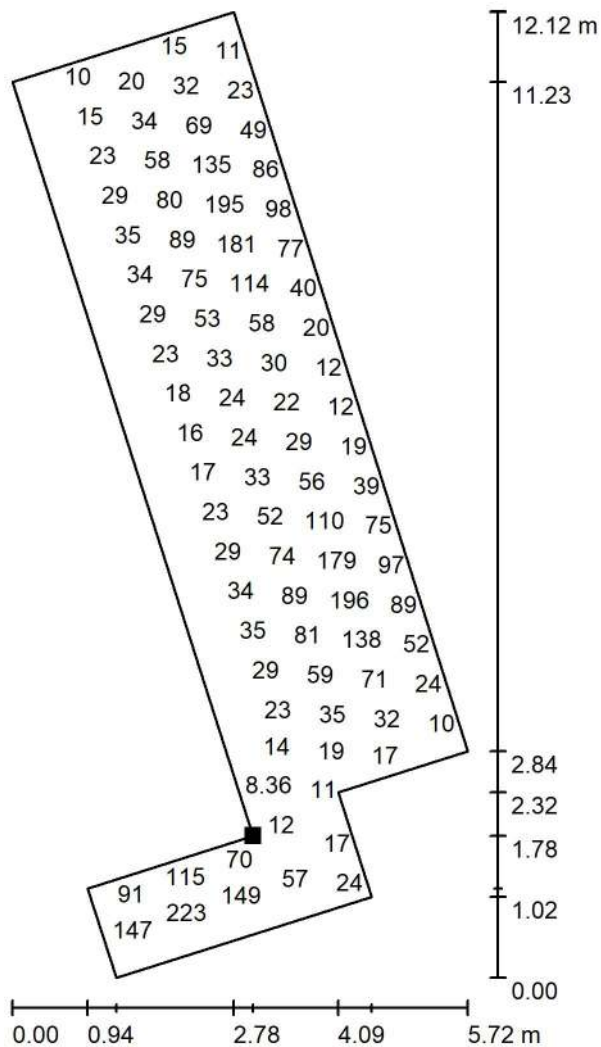
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Exterior Scene 1 / Rear 50-52 / Surface 1 / Value Chart (E)

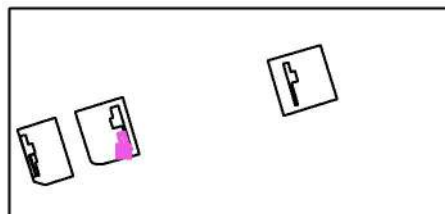
Values in Lux, Scale 1 : 95

Not all calculated values could be displayed.

Position of surface in external scene:

Marked point:

(290.175 m, 122.955 m, 0.000 m)



Grid: 128 x 128 Points

 E_{av} [lx]
53

 E_{min} [lx]
4.25

 E_{max} [lx]
225

 u_0
0.081

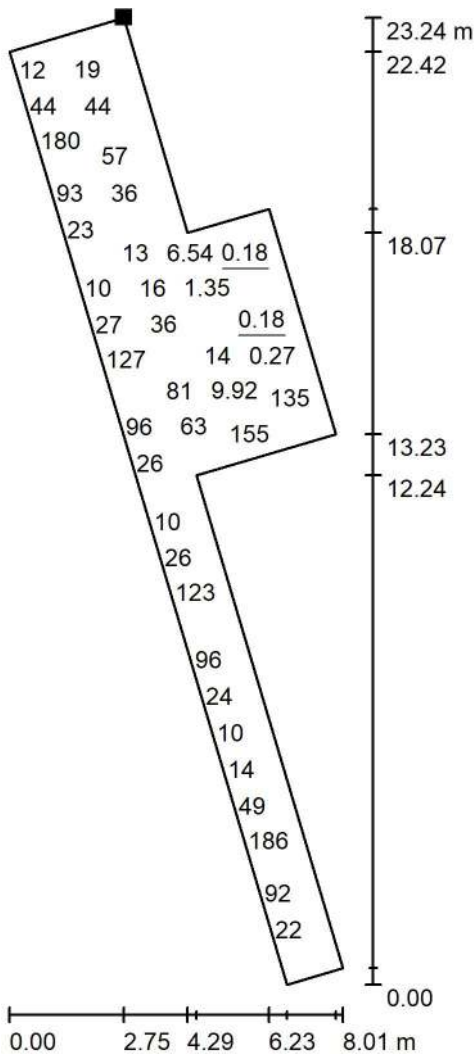
 E_{min} / E_{max}
0.019



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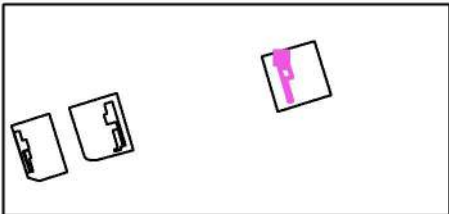
Exterior Scene 1 / Rear 68-70 / Surface 1 / Value Chart (E)



Values in Lux, Scale 1 : 182

Not all calculated values could be displayed.

Position of surface in external scene:
 Marked point:
 (377.995 m, 171.095 m, 0.000 m)



Grid: 128 x 128 Points

E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0	E_{min} / E_{max}
47	0.18	223	0.004	0.001

DATE: 26 September 2019
DESIGNER: Nicholas Hedge
PROJECT No: OP128026LD12808 - Gairdin Rauchain
PROJECT NAME: OP128026LD12808 - Gairdin Rauchain

Schröder
Experts in lightability™

LIGHTING CALCULATION: OP128026LD12808

DESIGNED TO ACHIEVE:

Roadways and Footpaths
BS 5489-1: 2013 - P4 (1.5 S/P RATIO)

Outdoor Lighting Report

This design has been prepared in accordance with the HEA/HEMSA Guidance Note - CDM2015 Regulations, Issue 1.1 dated 09/04/15 - Procedure 2 for an outline design. The information in this report does not account for installation considerations, site conditions or provide any form of risk assessment. Urbis' design service is advisory only and it is the responsibility of the recipient of this information to verify that the design is suitable for the intended application. No account is taken for the blocking effect caused by buildings, trees etc. The calculation shown assumes that the whole area considered is in the same plane.

PREPARED BY: Urbis Schreder Limited
Sapphire House
Lime Tree Way
Chineham
Basingstoke
RG23 8GG
Tel. 01256 354446
www.urbis-schreder.com

Layout Report

General Data

Dimensions in Metres Angles in Degrees
Grid Origin 63.0m x 372.0m
Area 250.0m x 153.0m
Sample Spacing 1.50m x 1.50m

Luminaires

Luminaire A Data

Supplier	
Type	AXIA 2.1 5167 - 16 Nichia NVSL219CT 690 mA NW 230V Without pr
Lamp(s)	16 Nichia NVSL219CT
Lamp Flux (klm)	4.28
File Name	AXIA 2.1 5167 16 Nichia NVSL219CT 690m A NW 383332 Without protector - 230V TF...
Maintenance Factor	0.83
Imax70,80,90(cd/klm)	956.2, 194.5, 0.0
Lamp S/P Ratio	0.00
No. in Project	12

Layout

ID	Type	X	Y	Height	Angle	Tilt	Cant	Out- reach	Target X	Target Y	Target Z
1	A	82.54	449.70	6.00	19.00	0.00	0.00	0.50			
2	A	209.32	463.60	6.00	106.00	0.00	0.00	0.50			
3	A	127.54	433.59	6.00	108.00	0.00	0.00	0.50			
4	A	156.69	423.89	6.00	20.00	0.00	0.00	0.50			
5	A	217.50	404.00	6.00	89.00	0.00	0.00	0.50			
6	A	162.50	458.79	6.00	285.00	0.00	0.00	0.50			
7	A	227.60	486.49	6.00	29.00	0.00	0.00	0.50			
8	A	261.26	458.24	6.00	225.00	0.00	0.00	0.50			
9	A	272.61	415.73	6.00	19.00	0.00	0.00	0.50			
10	A	183.66	404.25	6.00	88.00	0.00	0.00	0.50			
11	A	287.93	393.57	6.00	109.00	0.00	0.00	0.50			
12	A	245.39	407.92	6.00	184.00	0.00	0.00	0.50			

Horizontal Illuminance (lux)

Grid 1

