

DUB13
Lighting Calculation

PREPARED FOR



Issue VO

08 September 2022

Ref: DUB13-CL-XX-E009-VO-PL-BMD

Lighting Calculation

prepared for



Project: DUB13

United Kingdom

Ref: DUB13-CL-XX-E009-V0-PL-BMD

Issue V0

08 September 2022

prepared by

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London, UK

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Issue History

ISSUE	DATE	COMMENTS	BY	CHECKED	APPROVED
V0	08 Sep 2022	Issue for V0	JG	MJ	PM

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1. Executive Summary

These lighting calculations were prepared for the external area of the DUB13 project to demonstrate compliance with the lighting design criteria contained within the VDC OPR, VDC basis of design document and local regulations. The areas of concern such as the loading bay, parking areas, site entrances, walkways and roads are included, with calculation surfaces used where required to provide accurate outputs.

2. Lighting calculations

DUB-13 EXTERIOR LIGHTING PLAN

Partner for Contact:
Order No.:
Company:
Customer No.:

Date: 08.09.2022
Operator:

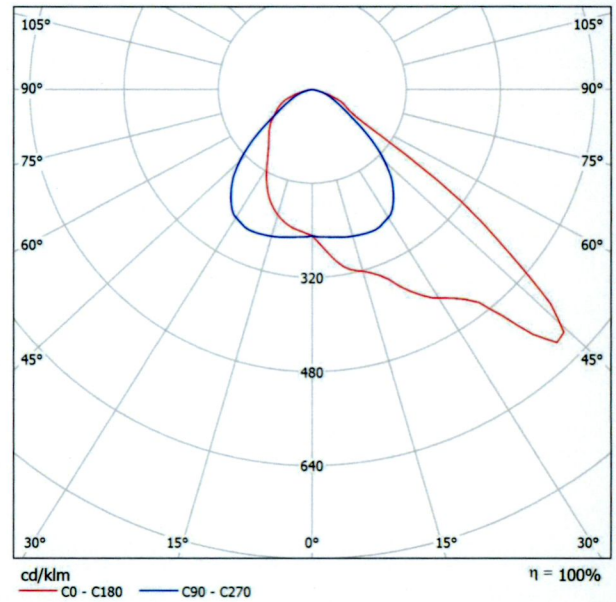


Operator
Telephone
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PHILIPS BVP125 T25 OFA52 LED80/- NO / Luminaire Data Sheet

See our luminaire catalog for an image of the luminaire.

Luminous emittance 1:



Luminaire classification according to CIE: 100
CIE flux code: 46 91 99 100 100

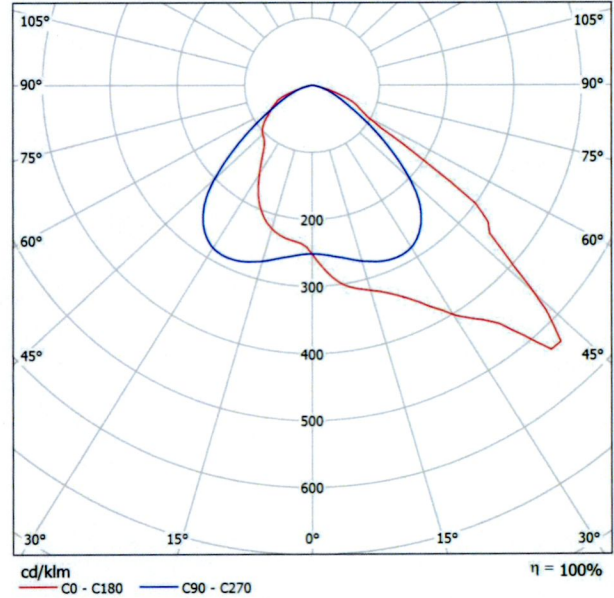
Due to missing symmetry properties, no UGR table can be displayed for this luminaire.

Operator
Telephone
Fax
e-Mail

PHILIPS BVP130 T25 OFA52 LED160/- NO / Luminaire Data Sheet

Luminous emittance 1:

See our luminaire catalog for an image of the luminaire.

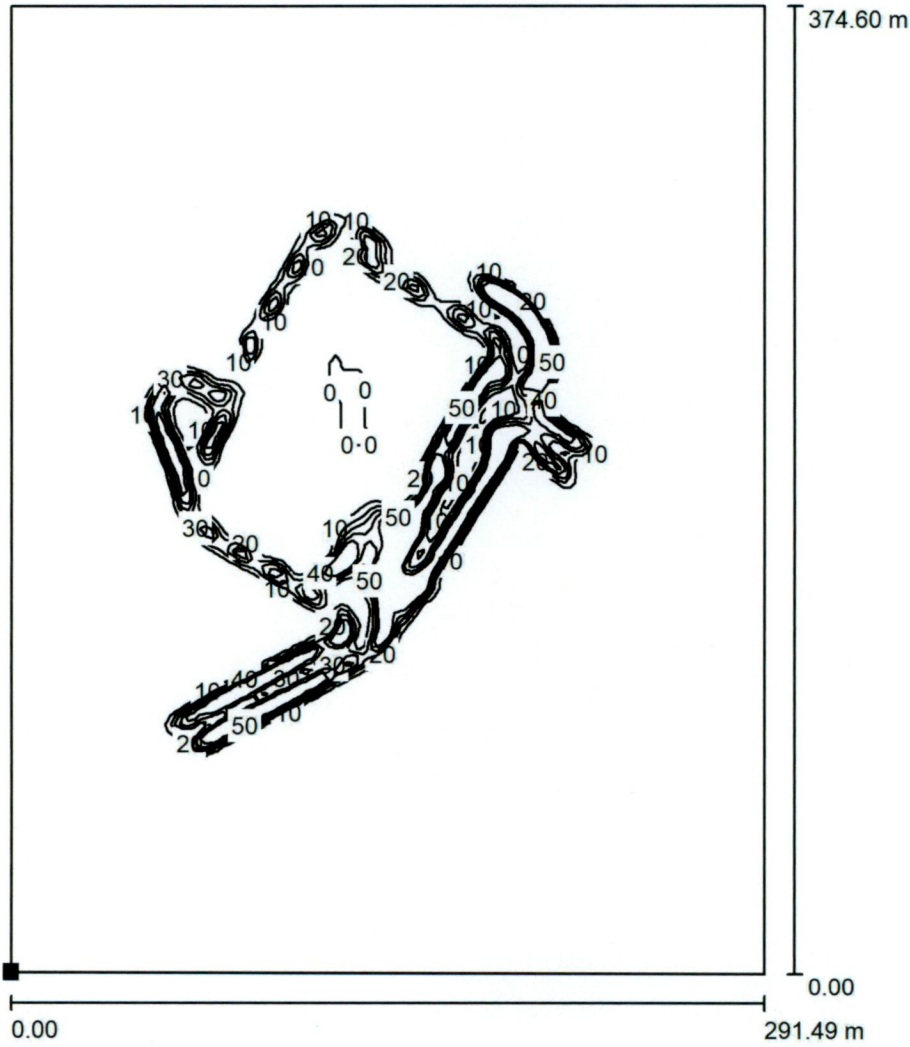


Luminaire classification according to CIE: 100
CIE flux code: 46 90 99 100 100

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

Operator
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Exterior Scene 1 / Ground Element 1 / Surface 1 / Isolines (E)



Values in Lux, Scale 1 : 2930

Position of surface in external scene:
Marked point:
(1340.200 m, 134.300 m, 0.000 m)

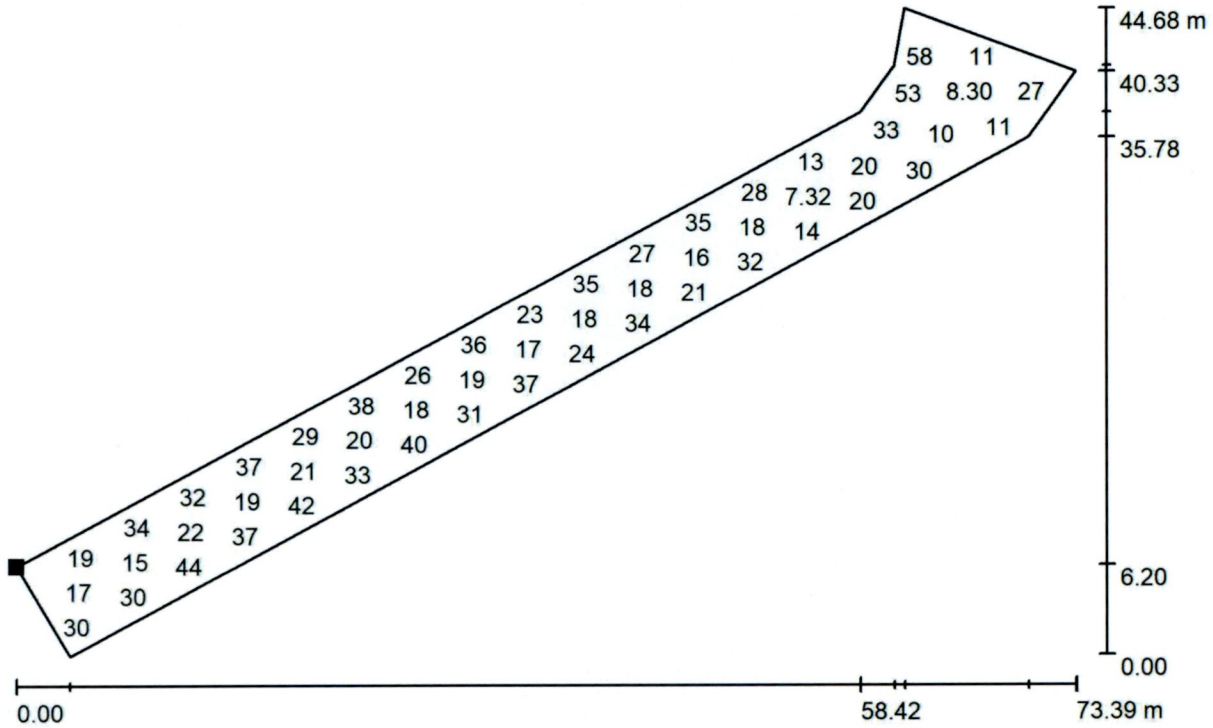


Grid: 128 x 128 Points

E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u0	E_{min} / E_{max}
3.70	0.00	154	0.000	0.000

Operator
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Exterior Scene 1 / AREA 1 ROAD ENTRANCE SOUTH WEST / Value Chart (E, Perpendicular)



Values in Lux, Scale 1 : 525

Not all calculated values could be displayed.

Position of surface in external scene:
Marked point:
(1408.512 m, 231.175 m, 0.750 m)



Grid: 128 x 64 Points

E_{av} [lx]
34

E_{min} [lx]
6.97

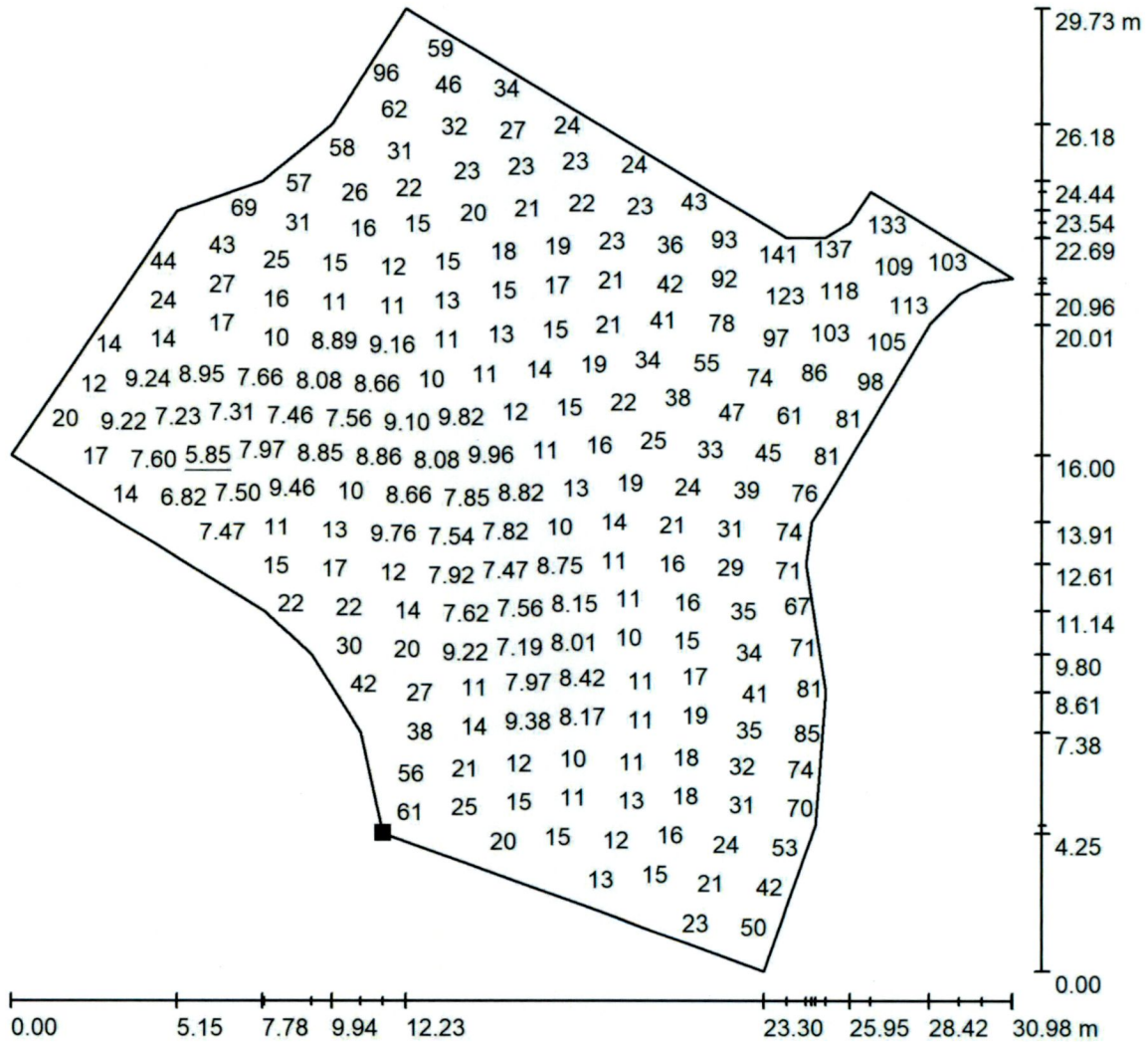
E_{max} [lx]
111

u_0
0.207

E_{min} / E_{max}
0.063

Operator
Telephone
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e-Mail

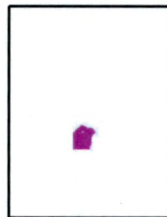
Exterior Scene 1 / AREA 2 AREA TO LOADING BAY / Value Chart (E, Perpendicular)



Values in Lux, Scale 1 : 233

Not all calculated values could be displayed.

Position of surface in external scene:
Marked point:
(1470.023 m, 269.648 m, 0.750 m)

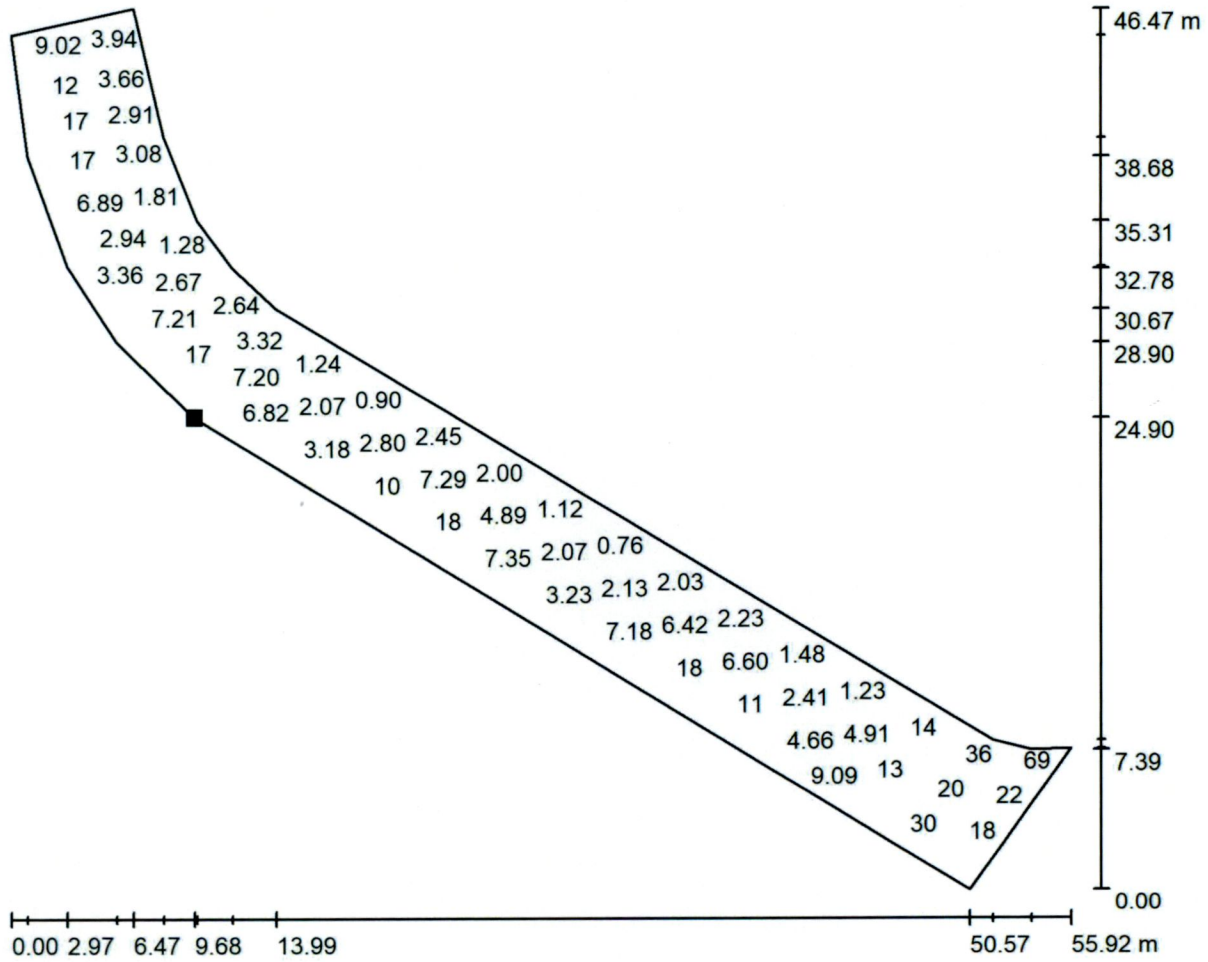


Grid: 128 x 128 Points

E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u0	E_{min} / E_{max}
31	5.85	172	0.187	0.034

Operator
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Fax
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Exterior Scene 1 / AREA 3 PLAN EAST ACCESS ROAD / Value Chart (E, Perpendicular)



Values in Lux, Scale 1 : 400

Not all calculated values could be displayed.

Position of surface in external scene:
Marked point:
(1417.408 m, 306.399 m, 0.750 m)

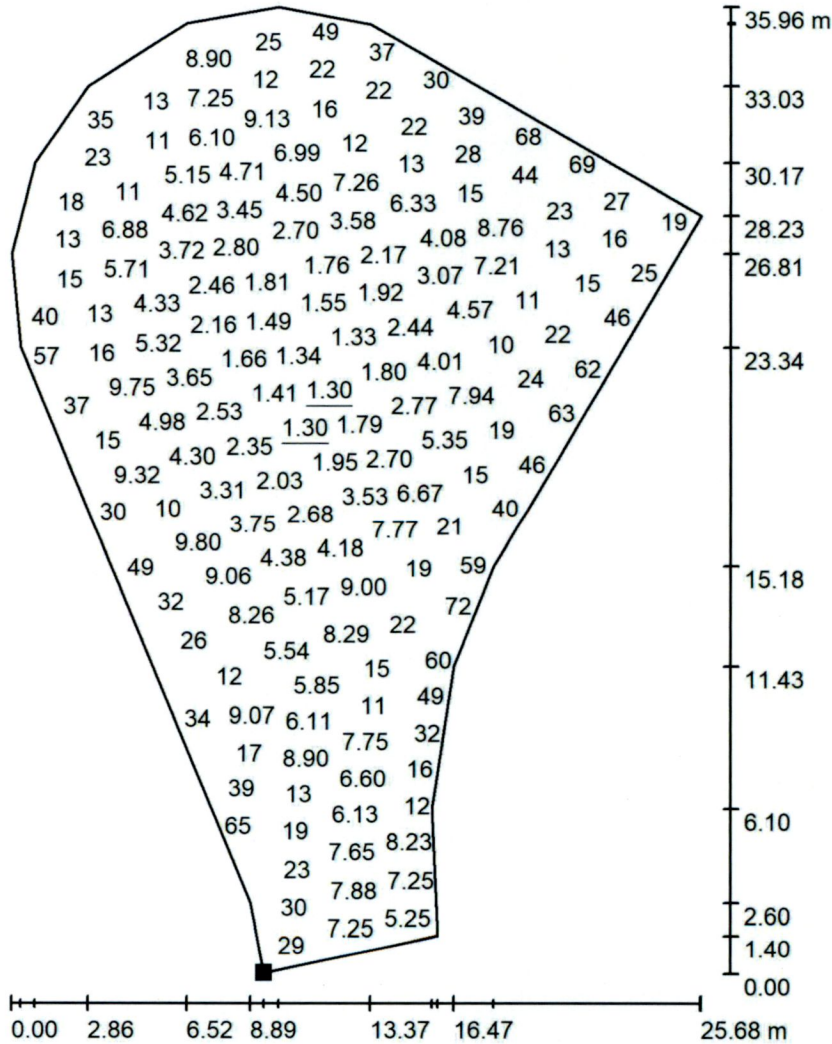


Grid: 128 x 64 Points

E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u0	E_{min} / E_{max}
13	0.58	92	0.046	0.006

Operator
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Exterior Scene 1 / AREA 4 NORTH WEST ROAD SPACE / Value Chart (E, Perpendicular)



Values in Lux, Scale 1 : 282

Not all calculated values could be displayed.

Position of surface in external scene:
Marked point:
(1407.726 m, 326.567 m, 0.750 m)



Grid: 128 x 128 Points

E_{av} [lx]
17

E_{min} [lx]
1.30

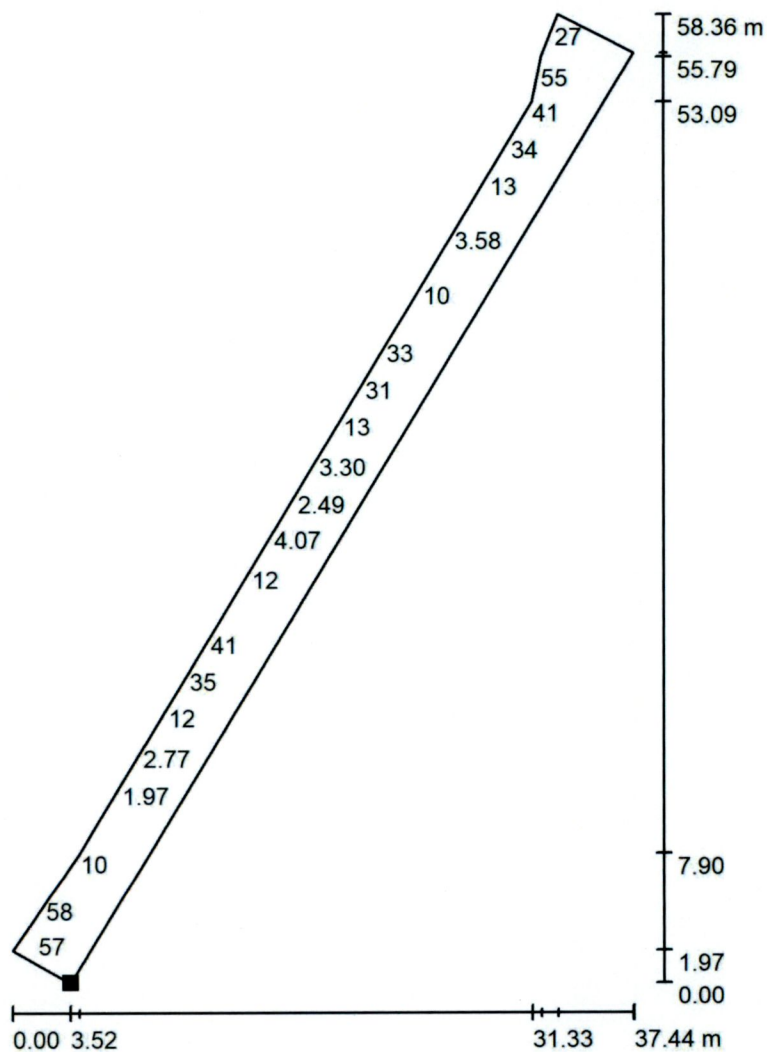
E_{max} [lx]
88

u_0
0.075

E_{min} / E_{max}
0.015

Operator
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Fax
e-Mail

Exterior Scene 1 / AREA 5 NORTH WEST ACCESS ROAD / Value Chart (E, Perpendicular)



Values in Lux, Scale 1 : 457

Not all calculated values could be displayed.

Position of surface in external scene:
Marked point:
(1424.082 m, 354.947 m, 0.750 m)

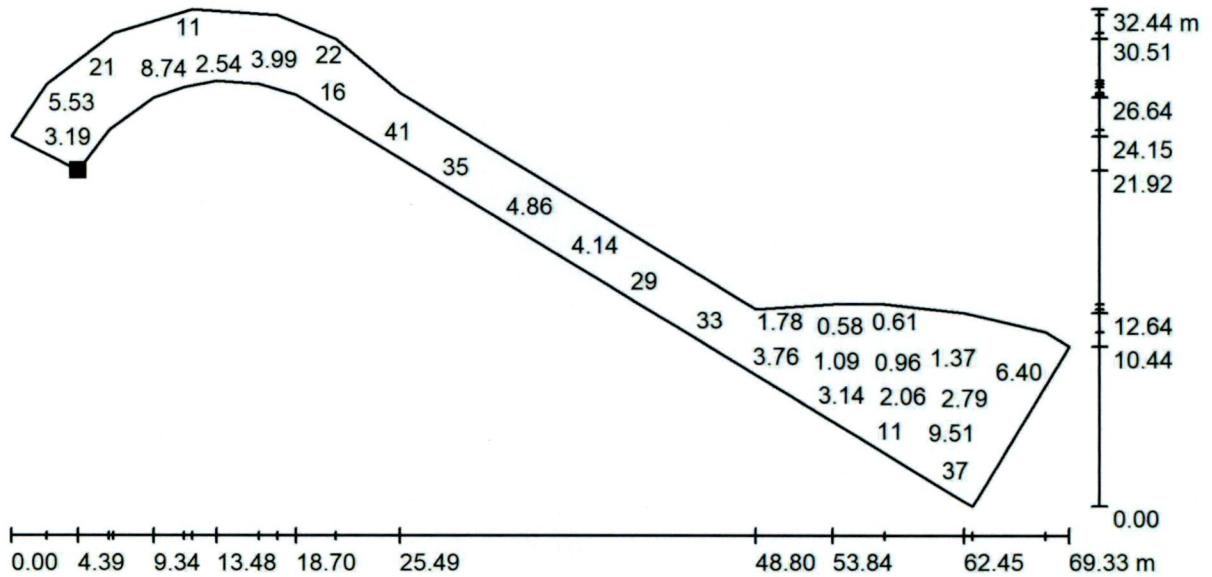


Grid: 128 x 32 Points

E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u0	E_{min} / E_{max}
17	1.05	88	0.060	0.012

Operator
Telephone
Fax
e-Mail

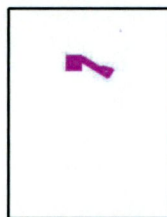
Exterior Scene 1 / AREA 6 NORTH EAST ACCESS ROAD / Value Chart (E, Perpendicular)



Values in Lux, Scale 1 : 496

Not all calculated values could be displayed.

Position of surface in external scene:
Marked point:
(1457.851 m, 411.076 m, 0.750 m)

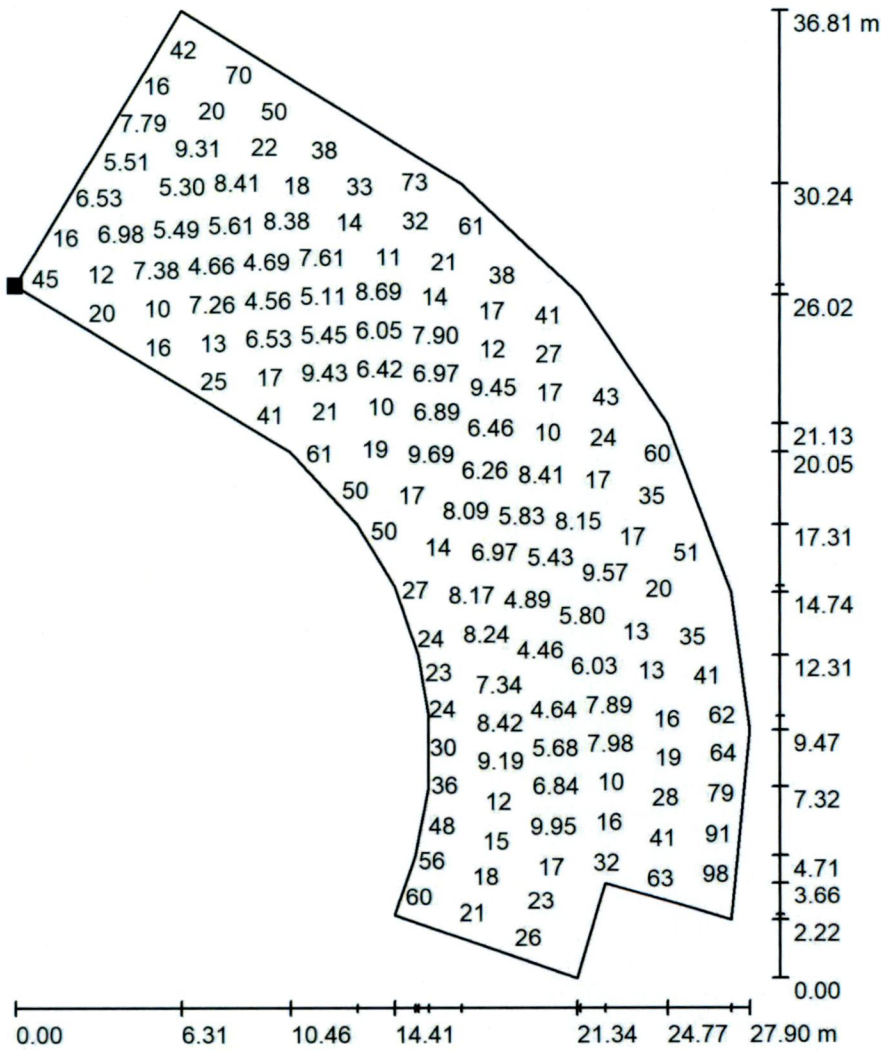


Grid: 128 x 64 Points

E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u0	E_{min} / E_{max}
13	0.47	78	0.036	0.006

Operator
Telephone
Fax
e-Mail

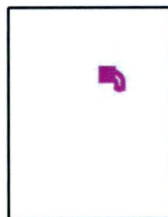
Exterior Scene 1 / AREA 7 NORTH EAST PARKING / Value Chart (E, Perpendicular)



Values in Lux, Scale 1 : 288

Not all calculated values could be displayed.

Position of surface in external scene:
Marked point:
(1516.486 m, 389.156 m, 0.750 m)

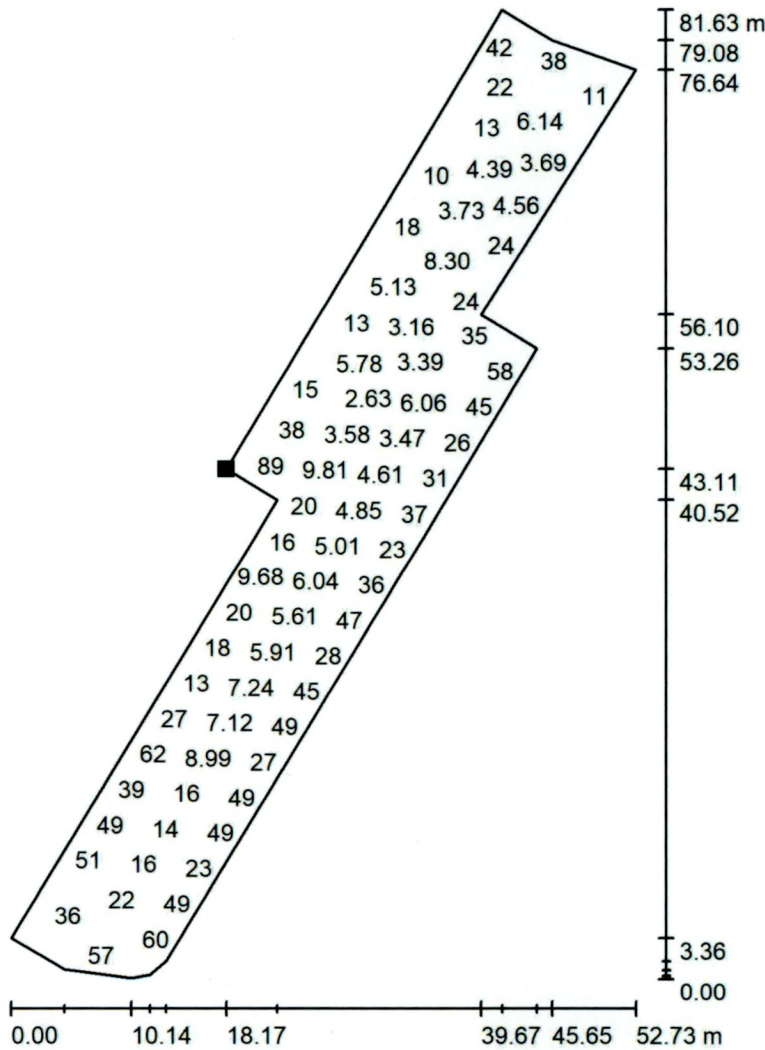


Grid: 128 x 128 Points

E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u0	E_{min} / E_{max}
26	4.12	124	0.162	0.033

Operator
Telephone
Fax
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Exterior Scene 1 / AREA 8 EAST PARKING / Value Chart (E, Perpendicular)



Values in Lux, Scale 1 : 639

Not all calculated values could be displayed.

Position of surface in external scene:
Marked point:
(1503.267 m, 329.255 m, 0.750 m)



Grid: 128 x 128 Points

E_{av} [lx]
28

E_{min} [lx]
2.30

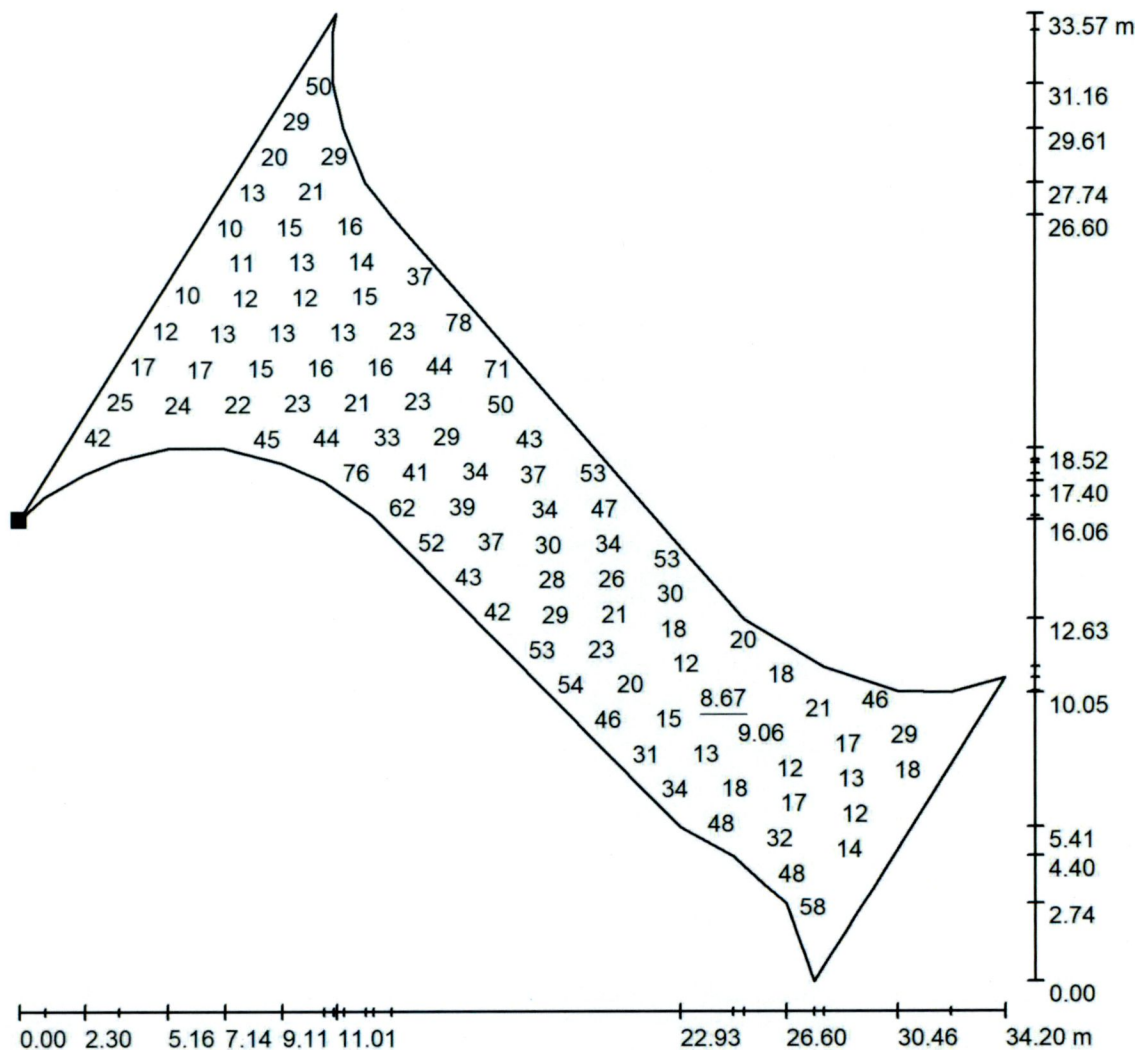
E_{max} [lx]
185

u_0
0.082

E_{min} / E_{max}
0.012

Operator
Telephone
Fax
e-Mail

Exterior Scene 1 / AREA 9 ROAD ENTRANCE EAST / Value Chart (E, Perpendicular)



Values in Lux, Scale 1 : 263

Not all calculated values could be displayed.

Position of surface in external scene:
Marked point:
(1526.738 m, 344.862 m, 0.750 m)



Grid: 128 x 128 Points

E_{av} [lx]
31

E_{min} [lx]
8.67

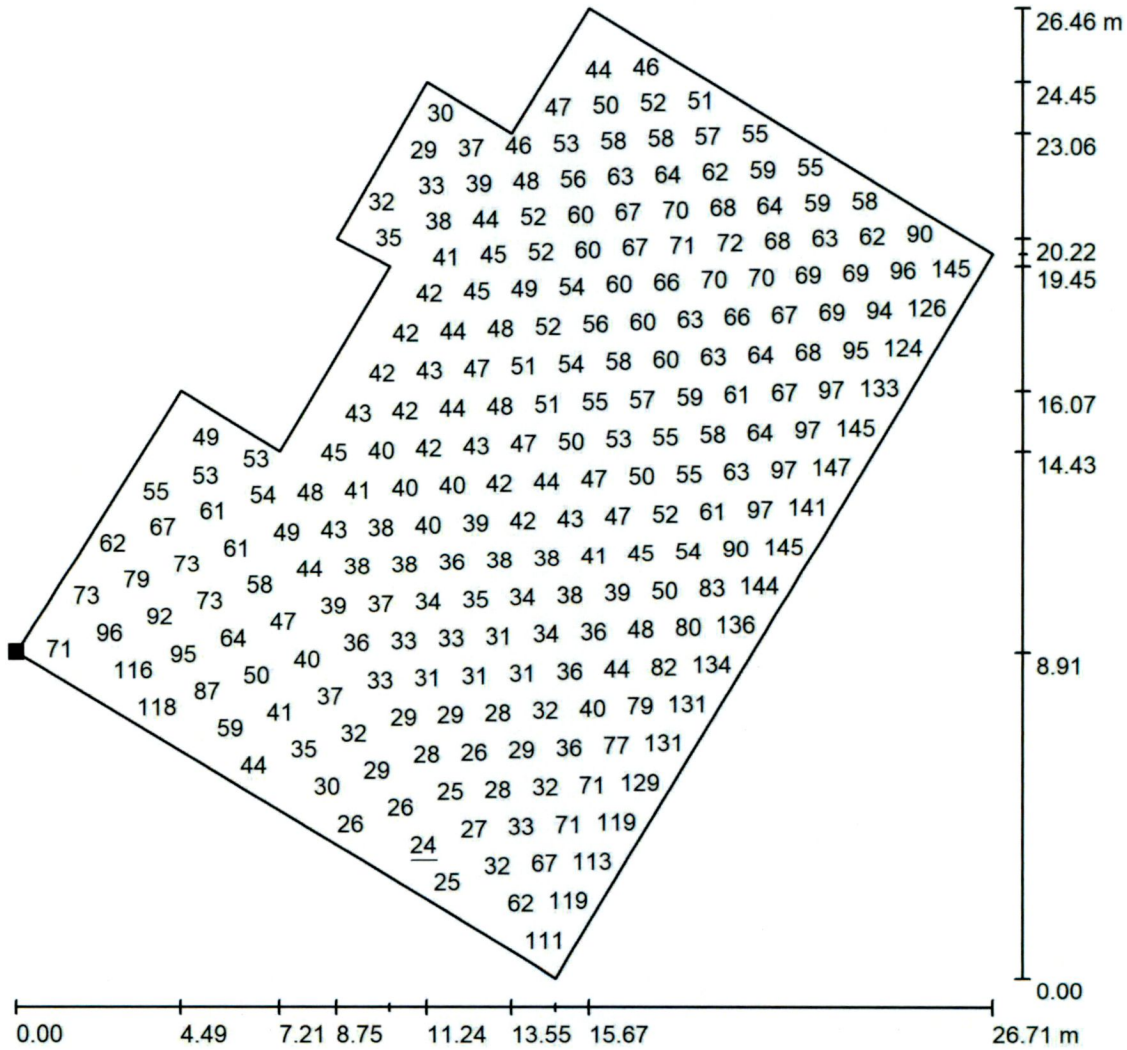
E_{max} [lx]
95

u_0
0.281

E_{min} / E_{max}
0.091

Operator
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Fax
e-Mail

Exterior Scene 1 / AREA 10 LOADING BAY / Value Chart (E, Perpendicular)



Values in Lux, Scale 1 : 207

Not all calculated values could be displayed.

Position of surface in external scene:
Marked point:
(1467.010 m, 297.373 m, 0.750 m)

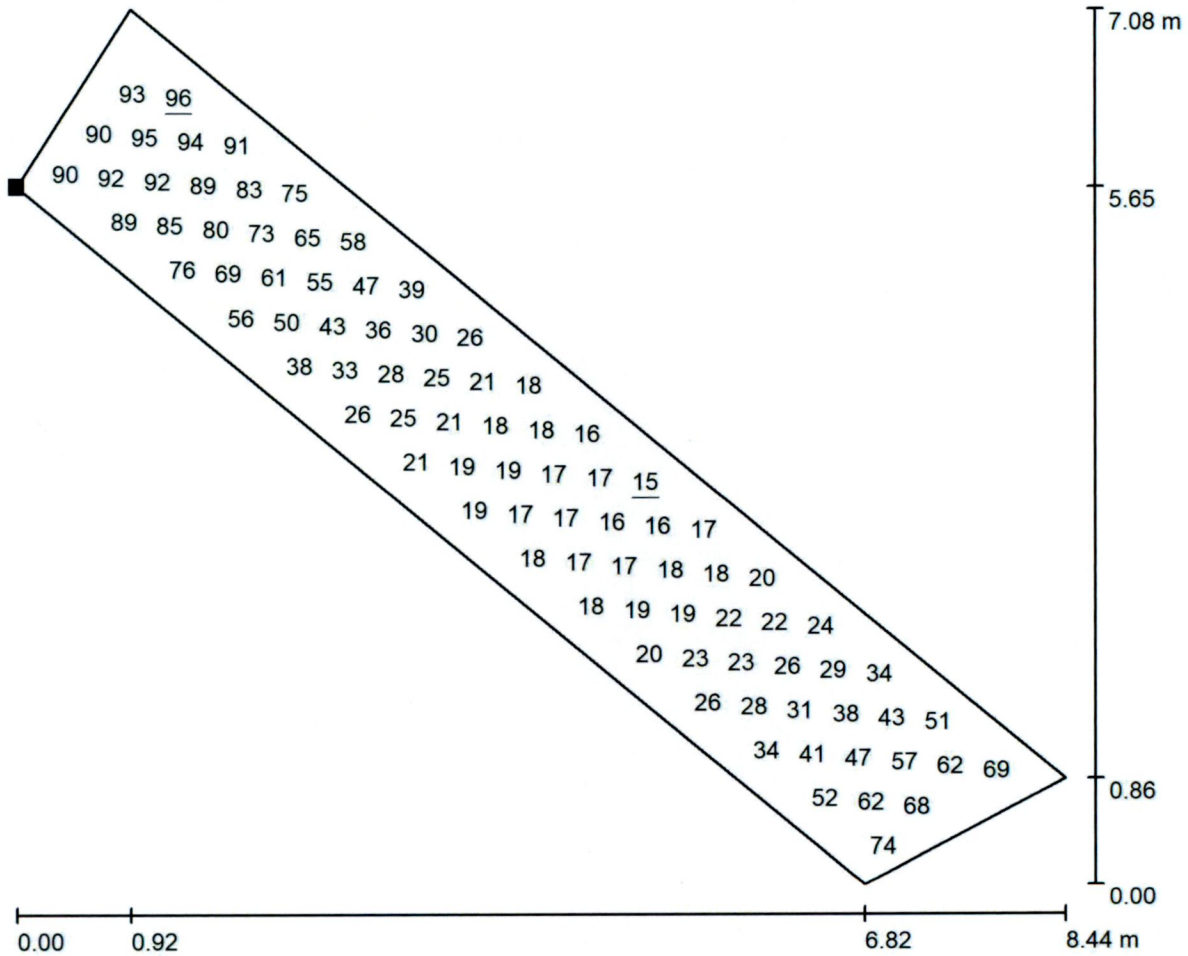


Grid: 128 x 128 Points

E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u0	E_{min} / E_{max}
59	24	173	0.412	0.140

Operator
Telephone
Fax
e-Mail

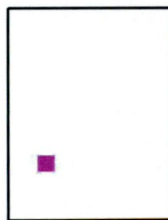
Exterior Scene 1 / AREA 11 FRONT CROSSING OF WALKWAY / Value Chart (E, Perpendicular)



Values in Lux, Scale 1 : 61

Not all calculated values could be displayed.

Position of surface in external scene:
Marked point:
(1408.142 m, 232.084 m, 0.750 m)



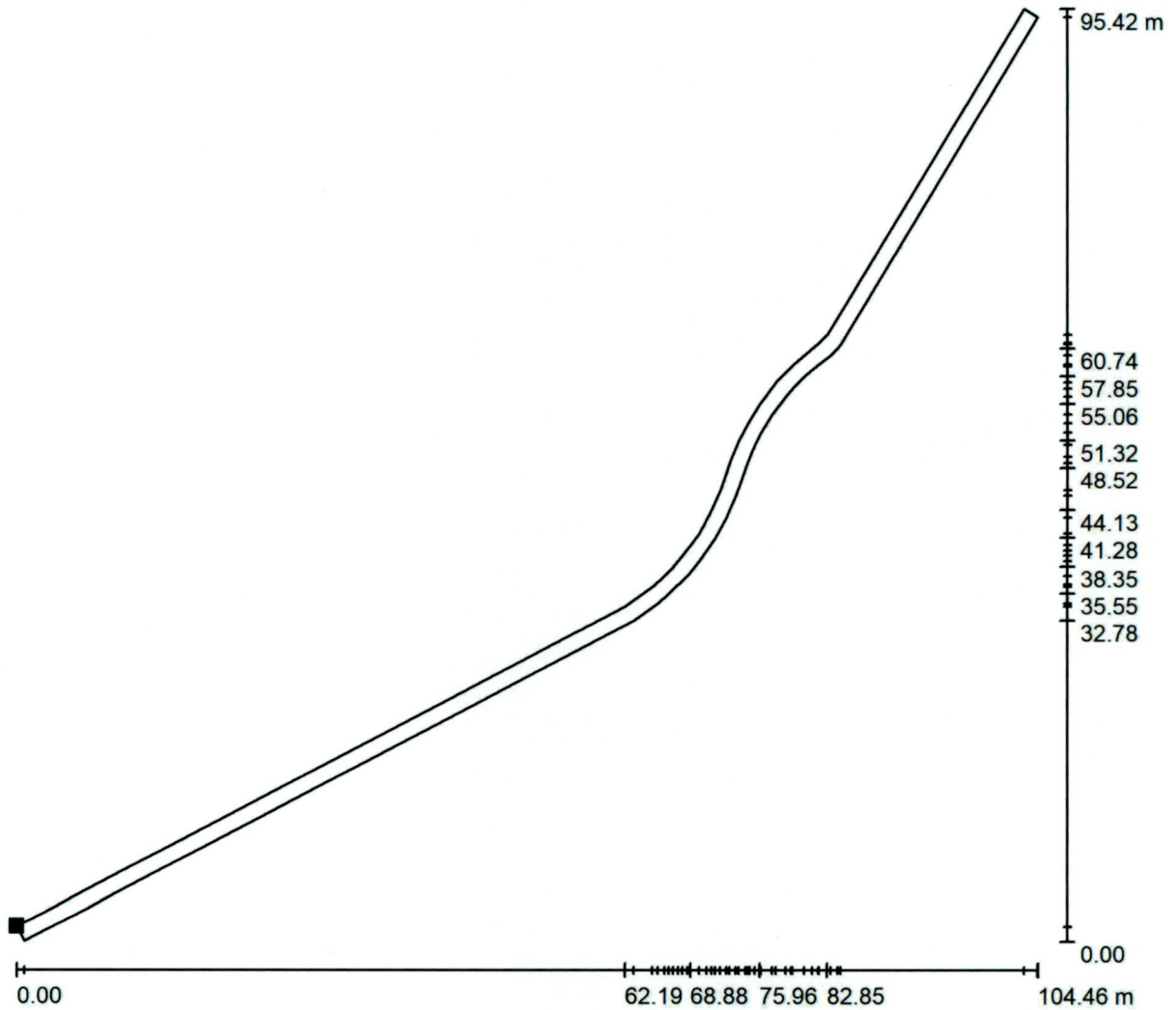
Grid: 32 x 8 Points

E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u0	E_{min} / E_{max}
45	15	96	0.340	0.158



Operator
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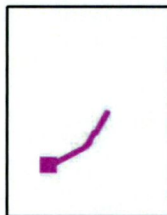
Exterior Scene 1 / AREA 12 LONG WALKWAY STRIP / Value Chart (E, Perpendicular)



Values in Lux, Scale 1 : 747

Not all calculated values could be displayed.

Position of surface in external scene:
Marked point:
(1414.964 m, 226.438 m, 0.750 m)



Grid: 128 x 128 Points

E_{av} [lx]
80

E_{min} [lx]
22

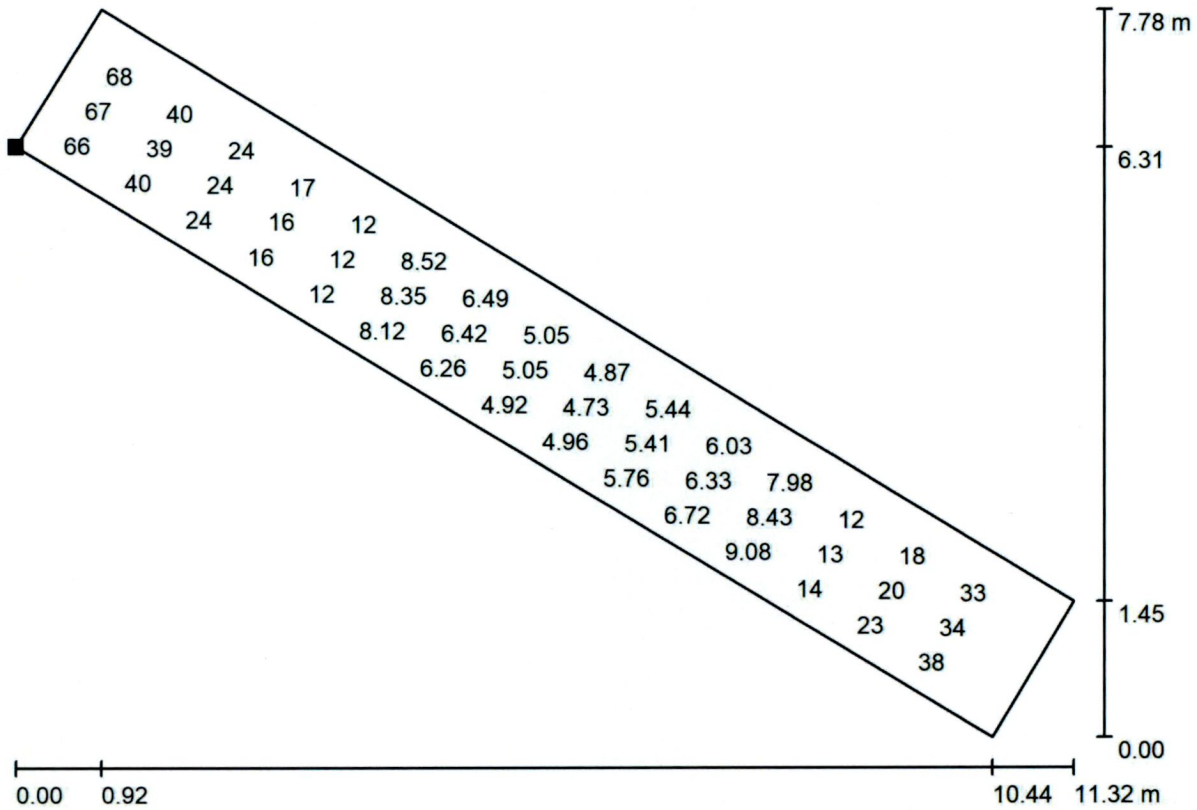
E_{max} [lx]
132

u0
0.272

E_{min} / E_{max}
0.165

Operator
Telephone
Fax
e-Mail

Exterior Scene 1 / AREA 13 WALKWAY CROSSING TO BUILDING / Value Chart (E, Perpendicular)



Values in Lux, Scale 1 : 81

Not all calculated values could be displayed.

Position of surface in external scene:
Marked point:
(1506.671 m, 325.220 m, 0.750 m)



Grid: 32 x 8 Points

E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u0	E_{min} / E_{max}
21	4.70	80	0.229	0.059



CREATE AMAZING.

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