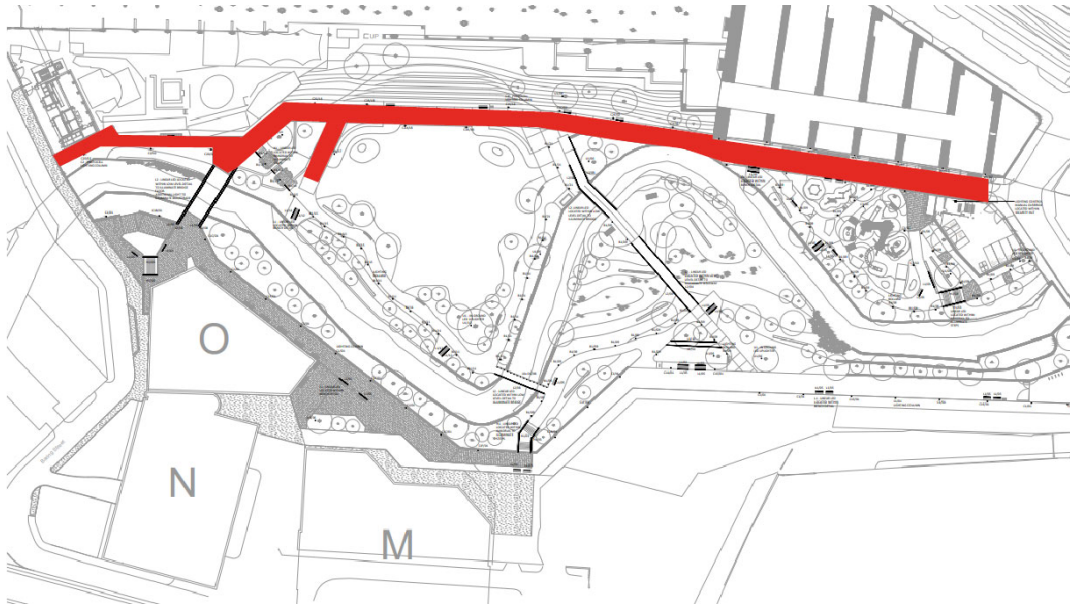


Lighting Calculations

PROJECT : Mayfield Park
DATE : 22/02/21
REF : 4292_09_001

Mayfield Park – Lighting Calculations



Description of area: *Landscape Path 1*

Lighting Requirements: *15-20 Lux at floor level*

Relevant Lighting Codes and Guidelines:
BS5489 - BSEN13201-02
BS 5489-1-2003: Road and Public Amenity Lighting
ILE Guidance for the Reduction of Light Pollution (2015)
ILE The Outdoor Lighting Guide (2005)
ILP Guidance, Bats and Artificial Lighting in the UK
CIBSE Fact File 7: Environmental Considerations for Exterior Lighting (2003)
SLL LG6 :The Exterior Environment (1992)
CIE136: Guide to the lighting of Urban Areas (2000)
Horizontal illuminance 200 lux min. maintained at working level, Uniformity of 0.4.

Calculation Output Information:

Light level at floor level:	30	(lux average)
Min / Max:	0.163	(lux)
Uniformity:	0.347	(Uo)
Maintenance Factor:	0.8	

floor level is 0.100m above the finish floor unless otherwise stated.

Concessions/Comments:
N/A

Calculations Prepared by: E.Flouda
Date: 19/03/21

Approved By: C.Sutherland
Date: 08/01/21

Mayfield Park – Lighting Calculations

Project 1

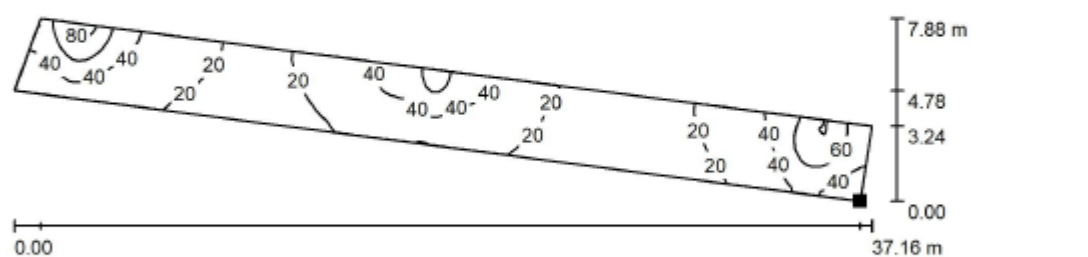


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Exterior Scene 3 We-EF Final Model Plus Spreader Lens / Path Double Head / Isolines (E, Perpendicular)



Values in Lux, Scale 1 : 266

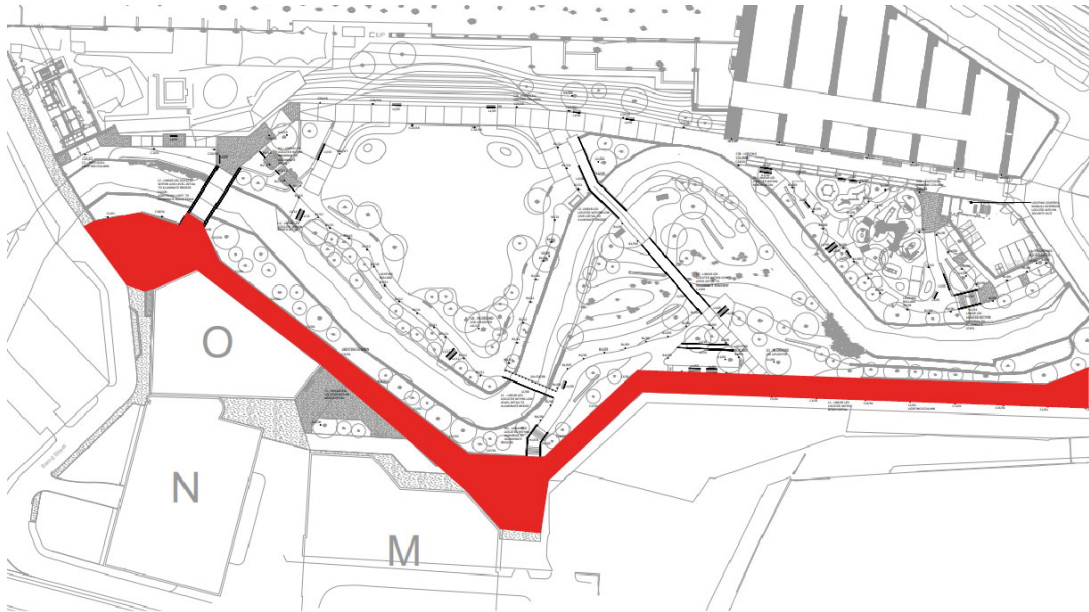
Position of surface in external scene:

Marked point:

(226.880 m, 164.660 m, 2.512 m)



Mayfield Park – Lighting Calculations



Description of area: *Landscape Path 2*

Lighting Requirements: *15-20 Lux at floor level*

Relevant Lighting Codes and Guidelines:

BS5489 - BSEN13201-02

BS 5489-1-2003: Road and Public Amenity Lighting

ILE Guidance for the Reduction of Light Pollution (2015)

ILE The Outdoor Lighting Guide (2005)

ILP Guidance, Bats and Artificial Lighting in the UK

CIBSE Fact File 7: Environmental Considerations for Exterior Lighting (2003)

SLL LG6 :The Exterior Environment (1992)

CIE136: Guide to the lighting of Urban Areas (2000)

Horizontal illuminance 200 lux min. maintained at working level, Uniformity of 0.4.

Calculation Output Information:

Light level at floor level:	16	(lux average)
Min / Max:	0.302	(lux)
Uniformity:	0.457	(Uo)
Maintenance Factor:	0.8	

floor level is 0.100m above the finish floor unless otherwise stated.

Concessions/Comments:

N/A

Calculations Prepared by: E.Flouda

Date: 08/01/21

Approved By: C.Sutherland

Date: 08/01/21

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Mayfield Park – Lighting Calculations

Project 1

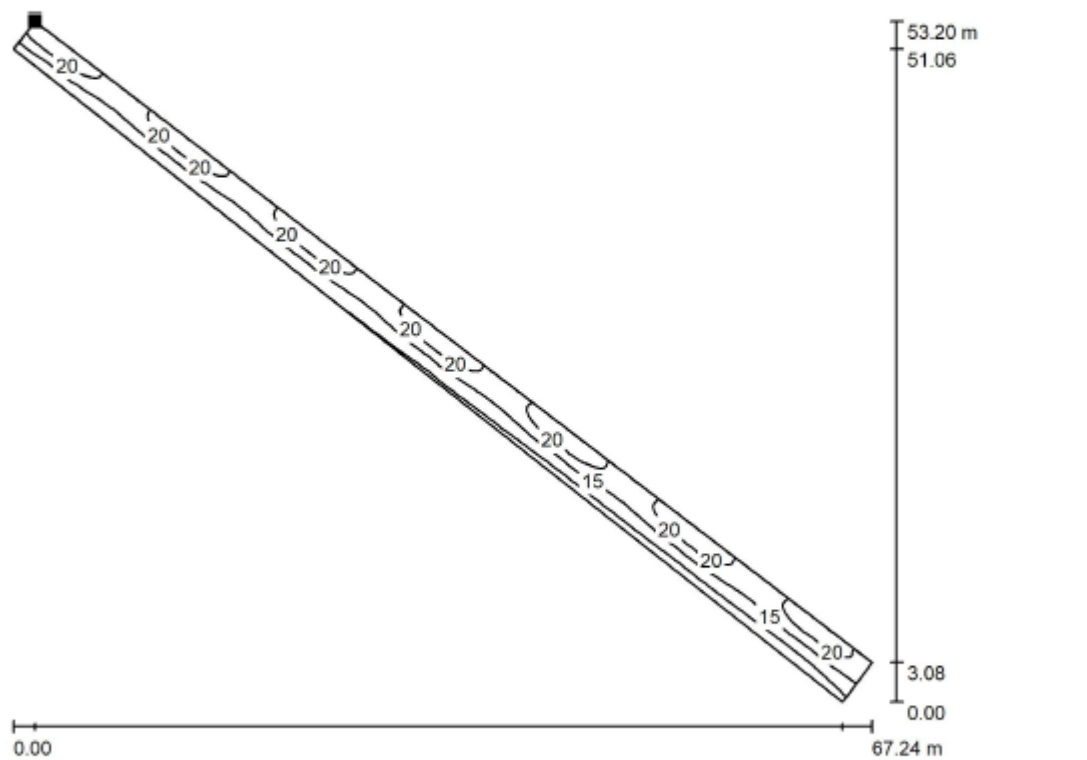


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Position of surface in external scene:

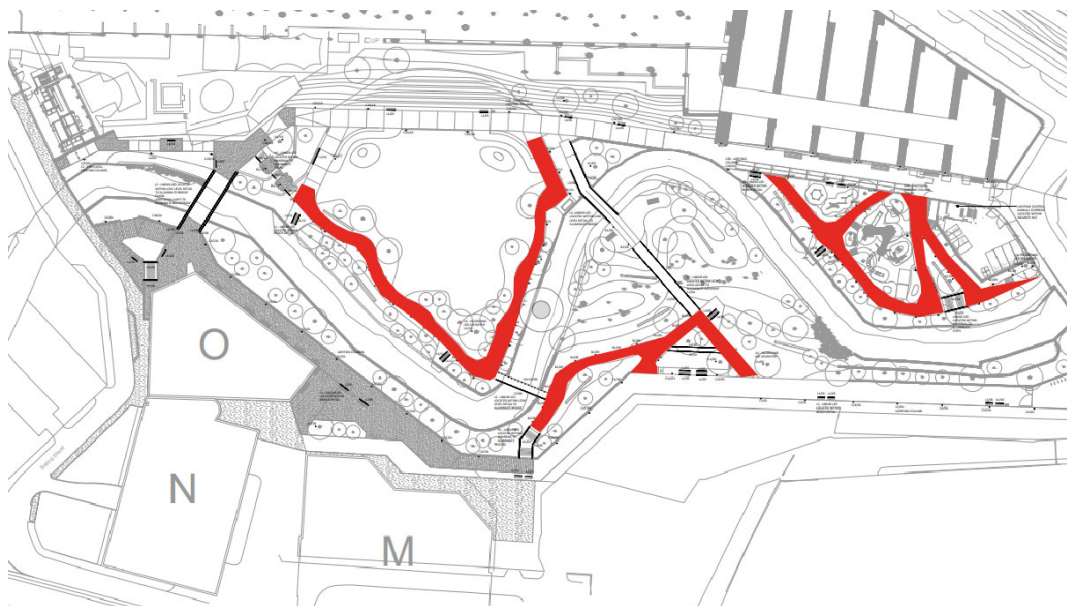
Marked point:

(97.891 m, 129.046 m, 2.600 m)



Values in Lux, Scale 1 : 481

Mayfield Park – Lighting Calculations



Description of area: *Landscape Path 3*

Lighting Requirements: *7-10 Lux at floor level*

Relevant Lighting Codes and Guidelines:

BS5489 - BSEN13201-02

BS 5489-1-2003: Road and Public Amenity Lighting

ILE Guidance for the Reduction of Light Pollution (2015)

ILE The Outdoor Lighting Guide (2005)

ILP Guidance, Bats and Artificial Lighting in the UK

CIBSE Fact File 7: Environmental Considerations for Exterior Lighting (2003)

SLL LG6 :The Exterior Environment (1992)

CIE136: Guide to the lighting of Urban Areas (2000)

Horizontal illuminance 200 lux min. maintained at working level, Uniformity of 0.4.

Calculation Output Information:

Light level at floor level:	16	(lux average)
Min / Max:	0.302	(lux)
Uniformity:	0.457	(Uo)
Maintenance Factor:	0.8	

floor level is 0.100m above the finish floor unless otherwise stated.

Concessions/Comments:

N/A

Calculations Prepared by: E.Flouda

Date: 08/01/21

Approved By: C.Sutherland

Date: 08/01/21

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Mayfield Park – Lighting Calculations

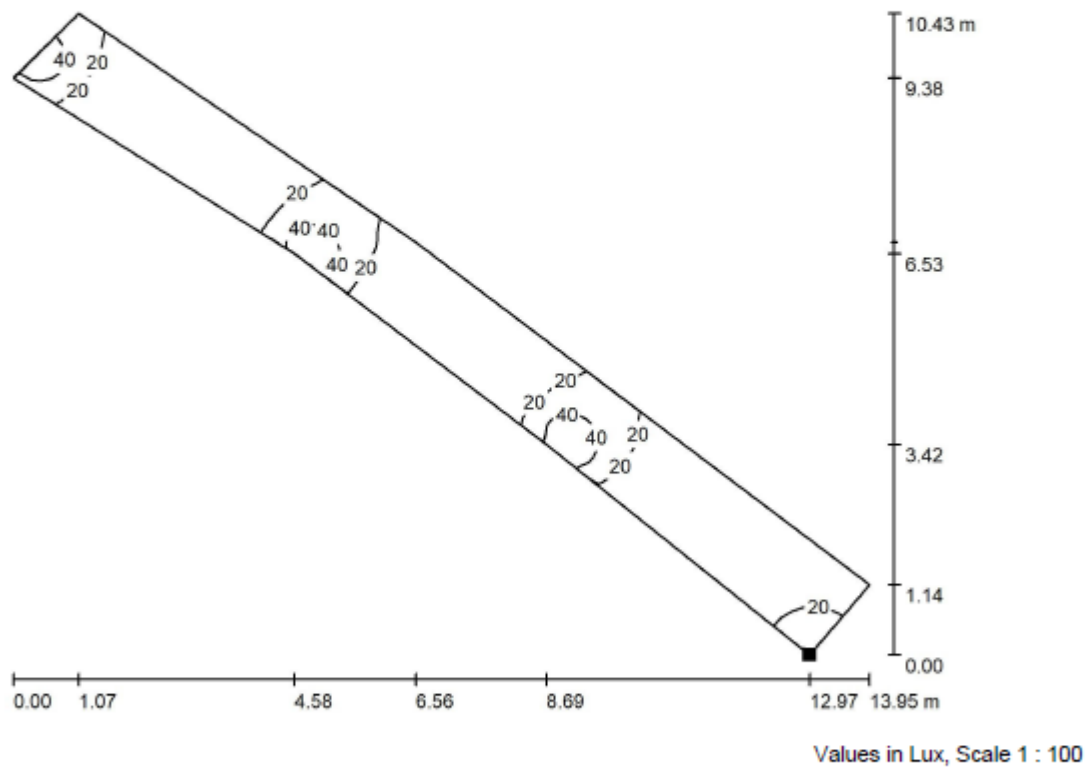
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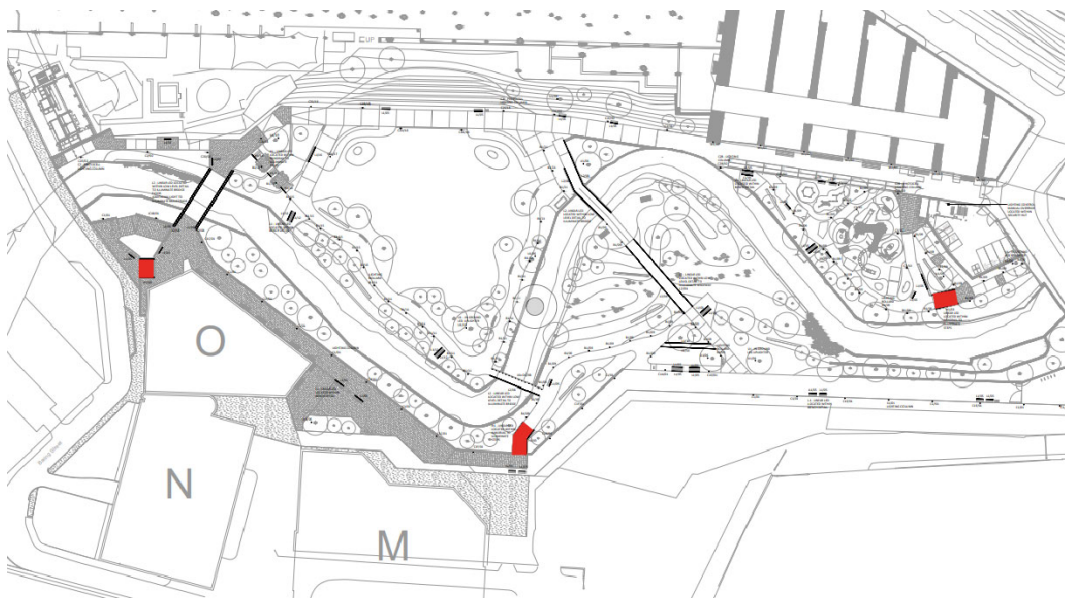
Exterior Scene 3 We-EF Final Model Plus Spreader Lens / Path / Isolines (E, Perpendicular)



Position of surface in external scene:
Marked point:
(159.406 m, 111.235 m, 2.600 m)



Mayfield Park – Lighting Calculations



Description of area: *Stairs with Double Sided Handrail*

Lighting Requirements: *100 Lux at floor level*

- Relevant Lighting Codes and Guidelines:
- BS5489 - BSEN13201-02
 - BS 5489-1-2003: Road and Public Amenity Lighting
 - ILE Guidance for the Reduction of Light Pollution (2015)
 - ILE The Outdoor Lighting Guide (2005)
 - ILP Guidance, Bats and Artificial Lighting in the UK
 - CIBSE Fact File 7: Environmental Considerations for Exterior Lighting (2003)
 - SLL LG6 :The Exterior Environment (1992)
 - CIE136: Guide to the lighting of Urban Areas (2000)
- Horizontal illuminance 200 lux min. maintained at working level, Uniformity of 0.4.

Calculation Output Information:

Light level at floor level:	101	(lux average)
Max / Min:	0.088	(lux)
Uniformity:	0.246	(Uo)
Maintenance Factor:	0.8	

floor level is 0.100m above the finish floor unless otherwise stated.

Concessions/Comments:
N/A

Calculations Prepared by: E.Flouda
Date: 08/01/21

Approved By: C.Sutherland
Date: 08/01/21

Mayfield Park – Lighting Calculations

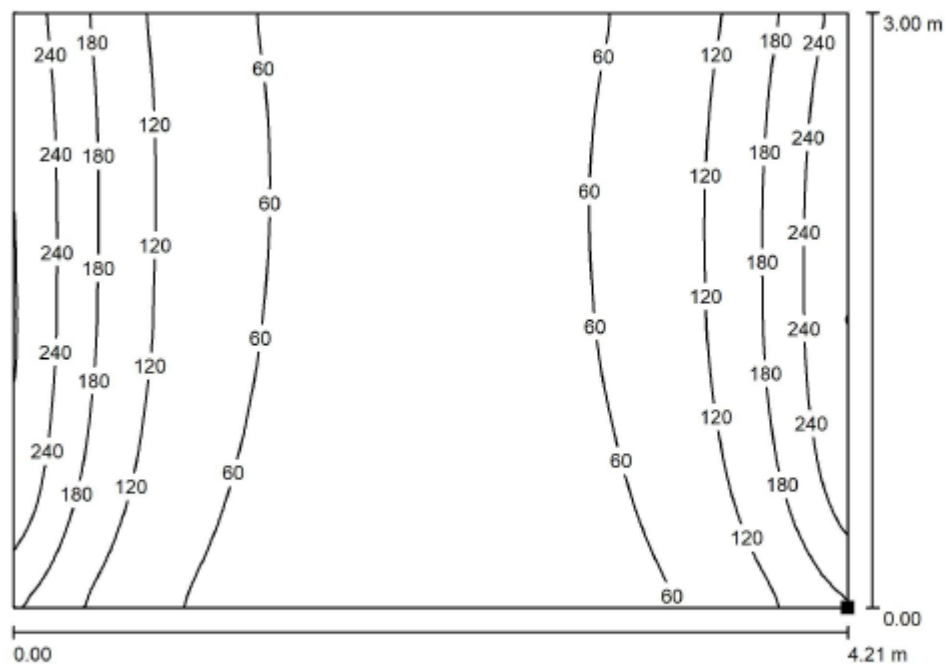
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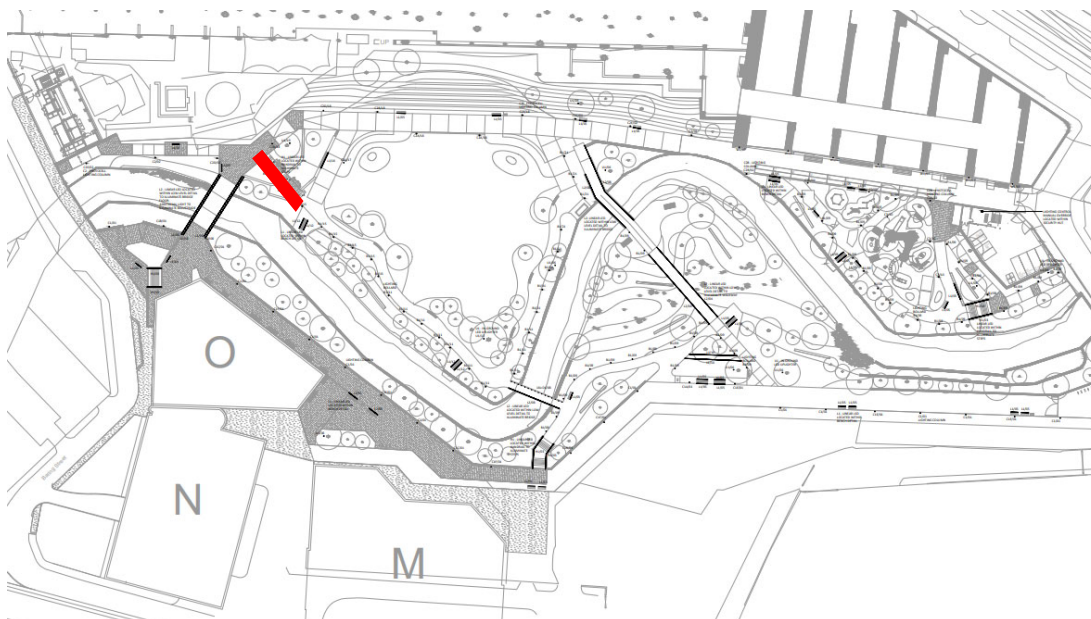
Stairs / Calculation Surface 1 / Isolines (E, Perpendicular)



Values in Lux, Scale 1 : 31

Position of surface in external scene:
Marked point:
(76.775 m, 127.637 m, 0.218 m)





Description of area: *Stairs with Single Sided Handrail*

Lighting Requirements: *100 Lux at floor level*

Relevant Lighting Codes and Guidelines:

BS5489 - BSEN13201-02

BS 5489-1-2003: Road and Public Amenity Lighting

ILE Guidance for the Reduction of Light Pollution (2015)

ILE The Outdoor Lighting Guide (2005)

ILP Guidance, Bats and Artificial Lighting in the UK

CIBSE Fact File 7: Environmental Considerations for Exterior Lighting (2003)

SLL LG6 :The Exterior Environment (1992)

CIE136: Guide to the lighting of Urban Areas (2000)

Horizontal illuminance 200 lux min. maintained at working level, Uniformity of 0.4.

Calculation Output Information:

Light level at floor level:	124	(lux average)
Max / Min:	0.136	(lux)
Uniformity:	0.259	(Uo)
Maintenance Factor:	0.8	

floor level is 0.100m above the finish floor unless otherwise stated.

Concessions/Comments:

N/A

Calculations Prepared by: E.Flouda

Date: 08/01/21

Approved By: C.Sutherland

Date: 08/01/21

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Mayfield Park – Lighting Calculations

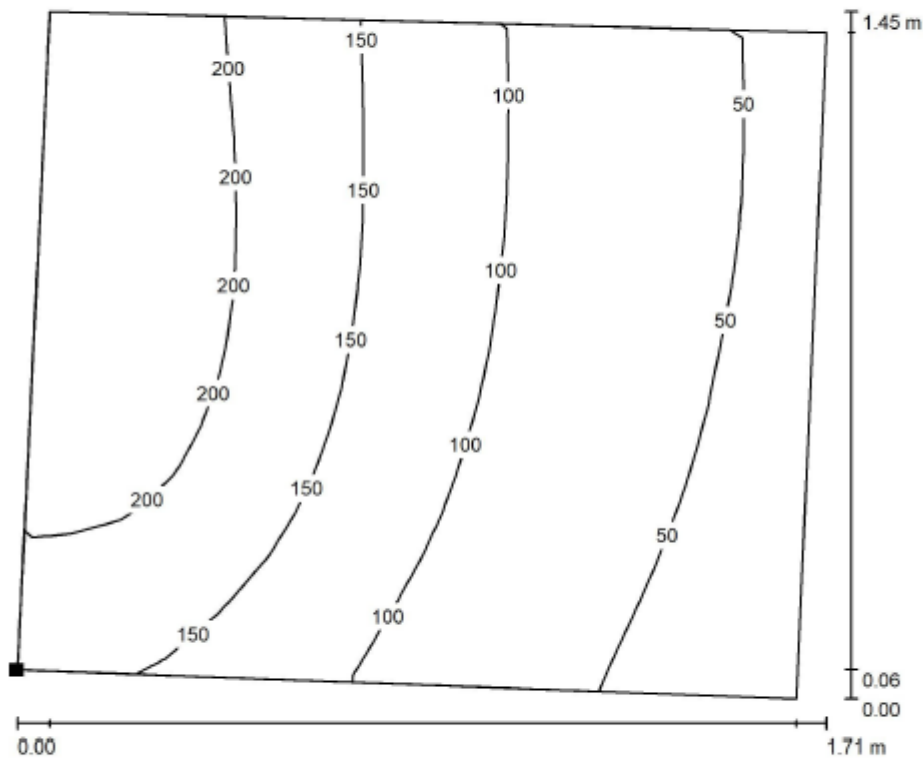
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Stairs / Calculation Surface 2 / Isolines (E, Perpendicular)

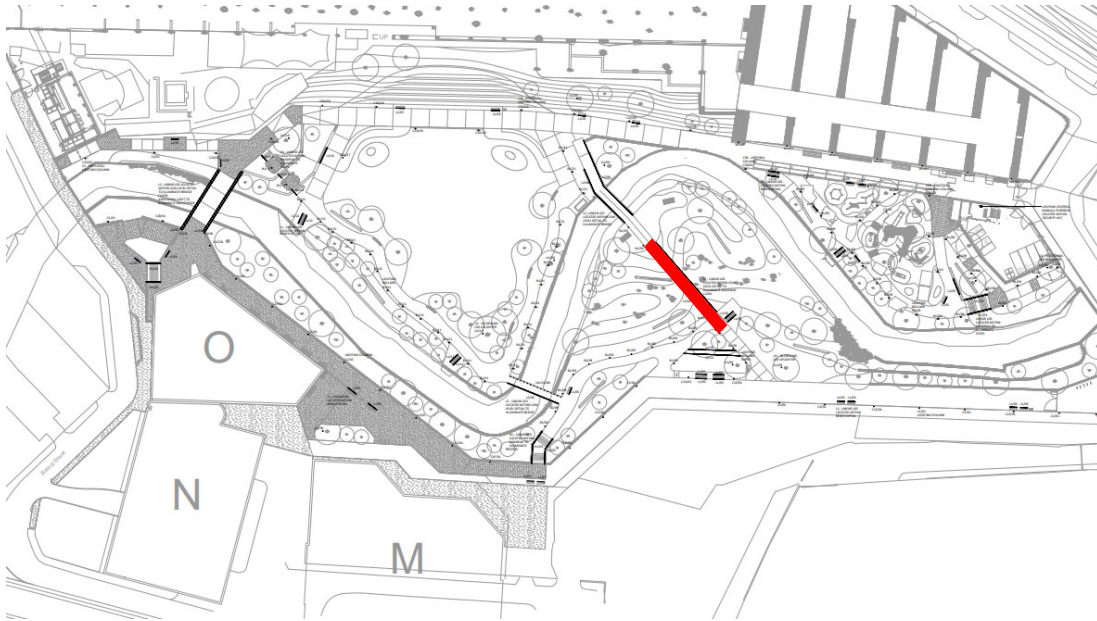


Values in Lux, Scale 1 : 13

Position of surface in external scene:
Marked point:
(108.791 m, 160.719 m, 2.758 m)



Mayfield Park – Lighting Calculations



Description of area: Walkway

Lighting Requirements: 15-20 Lux at floor level

Relevant Lighting Codes and Guidelines:

BS5489 - BSEN13201-02

BS 5489-1-2003: Road and Public Amenity Lighting

ILE Guidance for the Reduction of Light Pollution (2015)

ILE The Outdoor Lighting Guide (2005)

ILP Guidance, Bats and Artificial Lighting in the UK

CIBSE Fact File 7: Environmental Considerations for Exterior Lighting (2003)

SLL LG6 :The Exterior Environment (1992)

CIE136: Guide to the lighting of Urban Areas (2000)

Horizontal illuminance 200 lux min. maintained at working level, Uniformity of 0.4.

Calculation Output Information:

Light level at floor level:	28	(lux average)
Max / Min:	0.162	(lux)
Uniformity:	0.457	(Uo)
Maintenance Factor:	0.8	

floor level is 0.100m above the finish floor unless otherwise stated.

Concessions/Comments: N/A

Calculations Prepared by: E.Flouda

Date: 08/01/21

Approved By: C.Sutherland

Date: 08/01/21

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Mayfield Park – Lighting Calculations

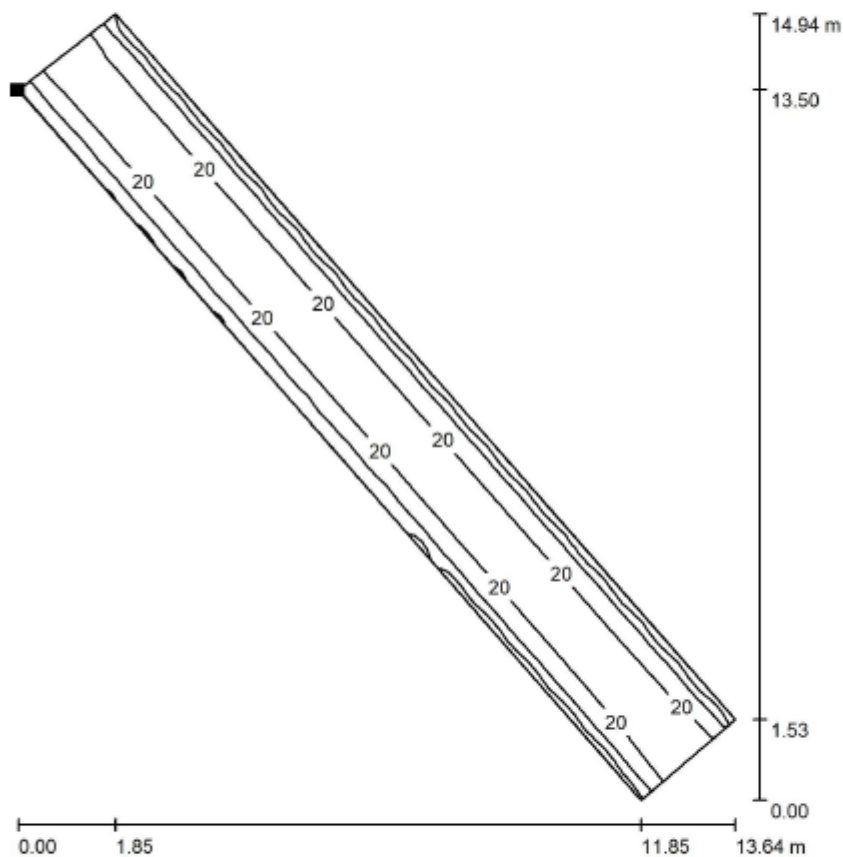
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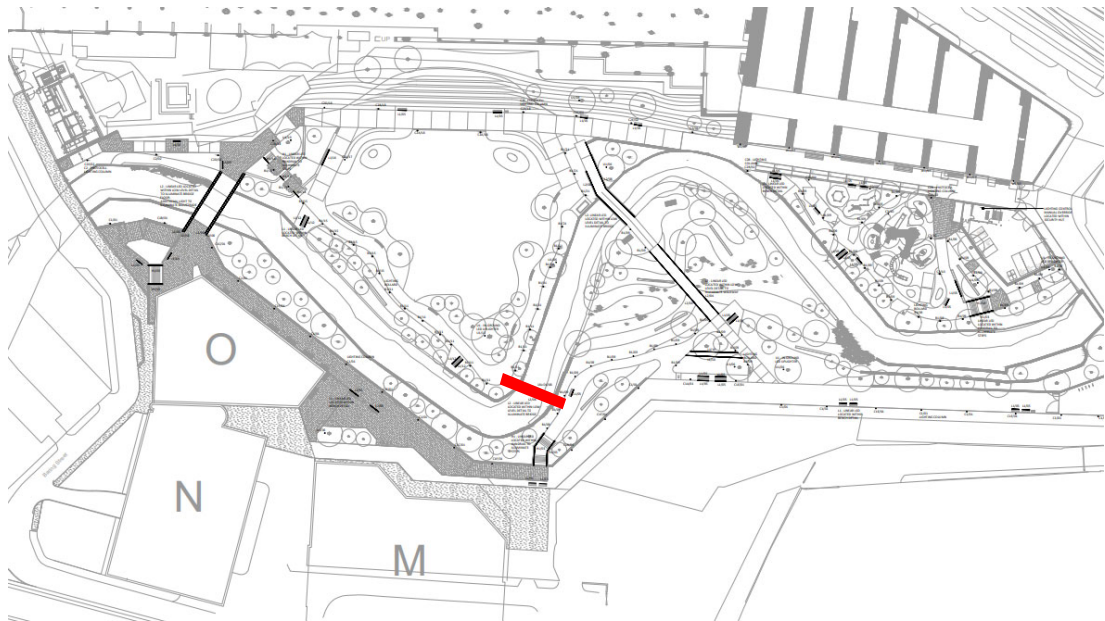
Values in Lux, Scale 1 : 117

Position of surface in external scene:

Marked point:
(218.054 m, 131.241 m, 2.520 m)



Mayfield Park – Lighting Calculations



Description of area: Bridge

Lighting Requirements: 15-20 Lux at floor level

Relevant Lighting Codes and Guidelines:
BS5489 - BSEN13201-02
BS 5489-1-2003: Road and Public Amenity Lighting
ILE Guidance for the Reduction of Light Pollution (2015)
ILE The Outdoor Lighting Guide (2005)
ILP Guidance, Bats and Artificial Lighting in the UK
CIBSE Fact File 7: Environmental Considerations for Exterior Lighting (2003)
SLL LG6 :The Exterior Environment (1992)
CIE136: Guide to the lighting of Urban Areas (2000)
Horizontal illuminance 200 lux min. maintained at working level, Uniformity of 0.4.

Calculation Output Information:

Light level at floor level:	31	(lux average)
Min / Max:	0.090	(lux)
Uniformity:	0.308	(Uo)
Maintenance Factor:	0.8	

floor level is 0.100m above the finish floor unless otherwise stated.

Concessions/Comments: N/A

Calculations Prepared by: E.Flouda
Date: 08/01/21

Approved By: C.Sutherland
Date: 08/01/21

Mayfield Park – Lighting Calculations

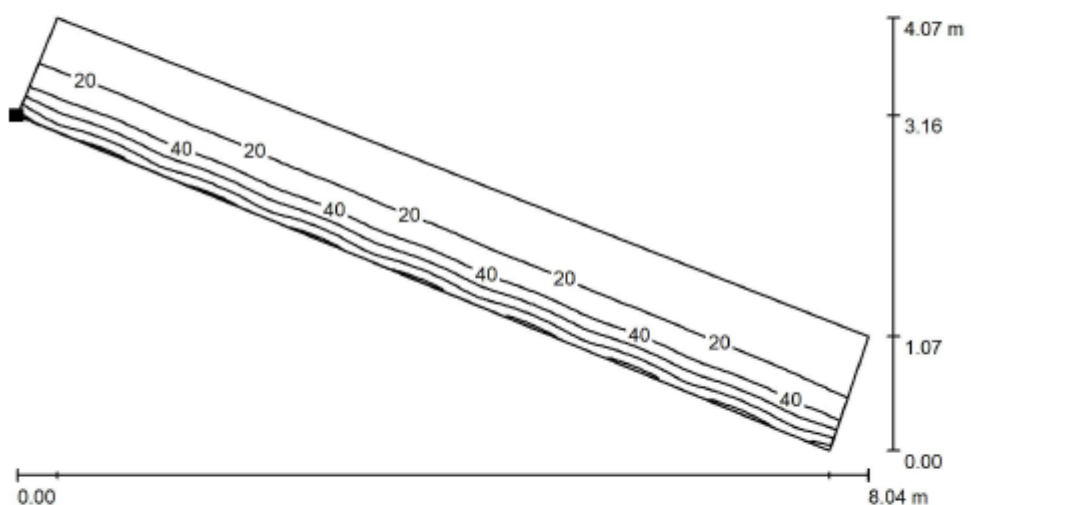
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Exterior Scene 3 We-EF Final Model Plus Spreader Lens / Bridge Single Side / Isolines (E, Perpendicular)



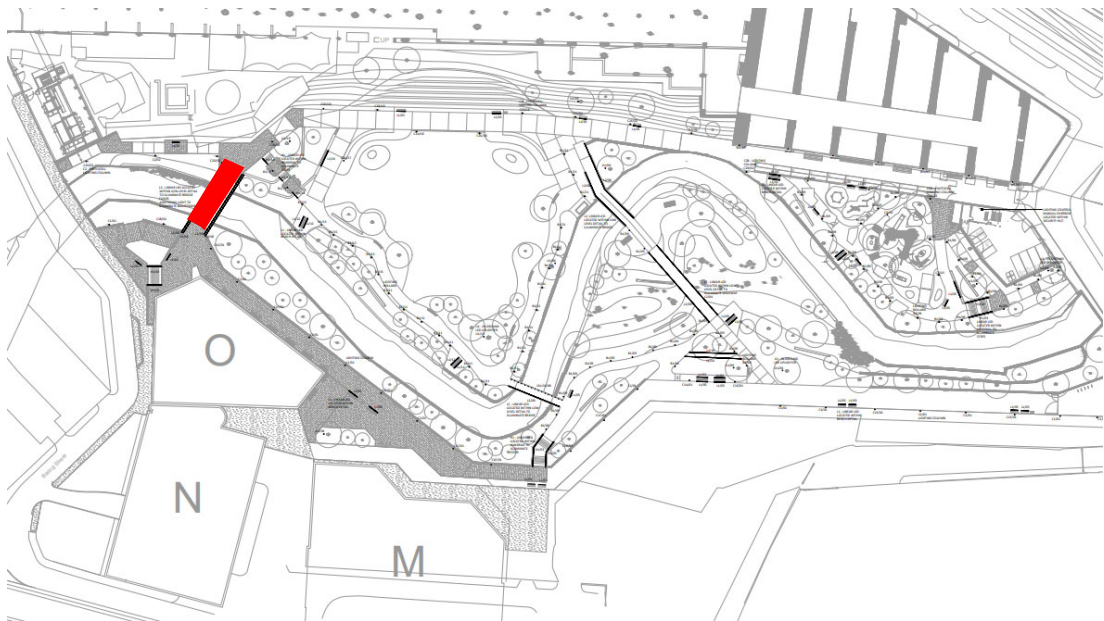
Position of surface in external scene:

Marked point:

(180.840 m, 97.351 m, 2.513 m)



Mayfield Park – Lighting Calculations



Description of area: Bridge

Lighting Requirements: 15-20 Lux at floor level

- Relevant Lighting Codes and Guidelines:
- BS5489 - BSEN13201-02
 - BS 5489-1-2003: Road and Public Amenity Lighting
 - ILE Guidance for the Reduction of Light Pollution (2015)
 - ILE The Outdoor Lighting Guide (2005)
 - ILP Guidance, Bats and Artificial Lighting in the UK
 - CIBSE Fact File 7: Environmental Considerations for Exterior Lighting (2003)
 - SLL LG6 :The Exterior Environment (1992)
 - CIE136: Guide to the lighting of Urban Areas (2000)
 - Horizontal illuminance 200 lux min. maintained at working level, Uniformity of 0.4.

Calculation Output Information:

Light level at floor level:	33	(lux average)
Min / Max:	0.030	(lux)
Uniformity:	0.304	(Uo)
Maintenance Factor:	0.8	

floor level is 0.100m above the finish floor unless otherwise stated.

Concessions/Comments: N/A

Calculations Prepared by: E.Flouda
Date: 08/01/21

Approved By: C.Sutherland
Date: 08/01/21

Mayfield Park – Lighting Calculations

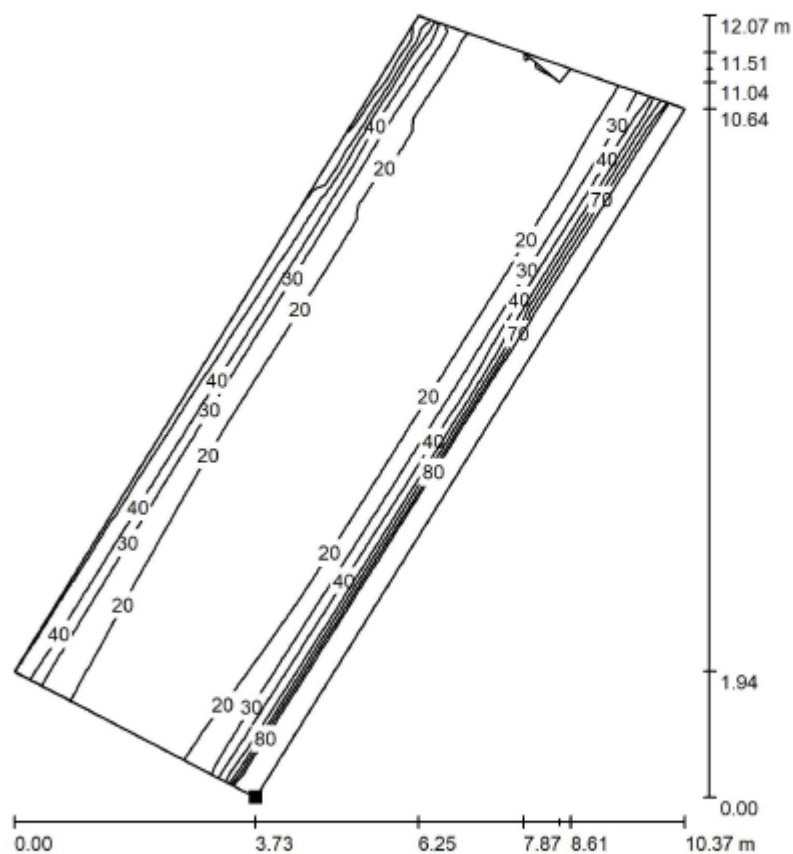
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Exterior Scene 3 We-EF Final Model Plus Spreader Lens / Bridge Single Side / Isolines (E, Perpendicular)

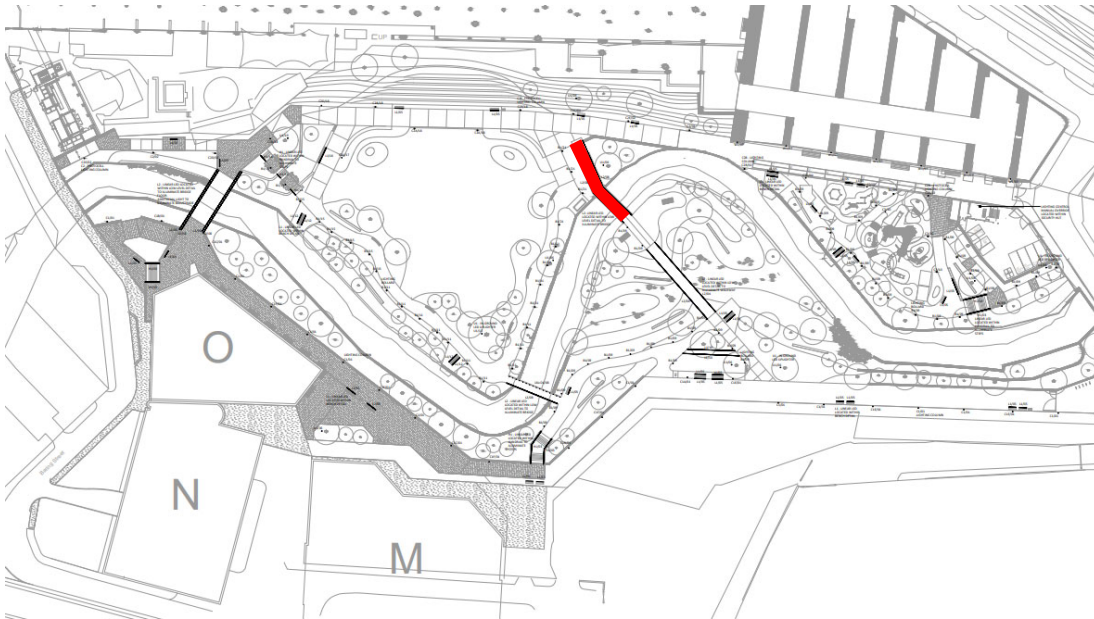


Values in Lux, Scale 1 : 95

Position of surface in external scene:
Marked point:
(91.898 m, 142.238 m, 2.513 m)



Mayfield Park – Lighting Calculations



Description of area: Bridge

Lighting Requirements: 15-20 Lux at floor level

Relevant Lighting Codes and Guidelines:

BS5489 - BSEN13201-02

BS 5489-1-2003: Road and Public Amenity Lighting

ILE Guidance for the Reduction of Light Pollution (2015)

ILE The Outdoor Lighting Guide (2005)

ILP Guidance, Bats and Artificial Lighting in the UK

CIBSE Fact File 7: Environmental Considerations for Exterior Lighting (2003)

SLL LG6 :The Exterior Environment (1992)

CIE136: Guide to the lighting of Urban Areas (2000)

Horizontal illuminance 200 lux min. maintained at working level, Uniformity of 0.4.

Calculation Output Information:

Light level at floor level:	31	(lux average)
Min / Max:	0.135	(lux)
Uniformity:	0.489	(Uo)
Maintenance Factor:	0.8	

floor level is 0.100m above the finish floor unless otherwise stated.

Concessions/Comments: N/A

Calculations Prepared by: E.Flouda

Date: 08/01/21

Approved By: C.Sutherland

Date: 08/01/21

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Mayfield Park – Lighting Calculations

Project 1

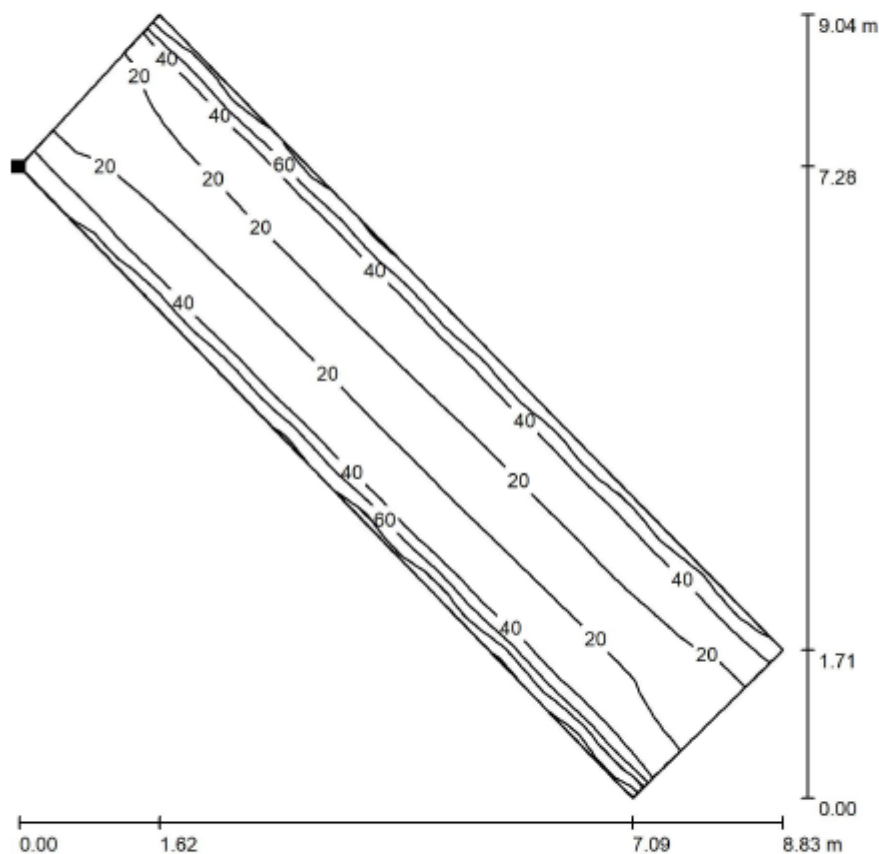


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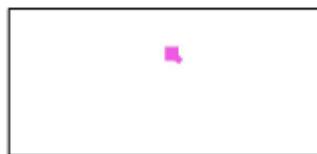
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Exterior Scene 3 We-EF Final Model Plus Spreader Lens / Bridge Double Side / Isolines (E, Perpendicular)



Values in Lux, Scale 1 : 71

Position of surface in external scene:
Marked point:
(199.855 m, 151.335 m, 2.520 m)



Mayfield Park – Lighting Calculations

