



Ramridge Farm

Installation : Proposed External Lighting

Project number : LL1921-001

Customer :

Processed by : Ian Forrow :

Date 12.06.2025

Project description:

Low Level lighting to the Barn surround to offer general lighting while limiting the impact on the surrounding area.

Lights mounted @ 1.8m AFFL

2.7K Colour Temperature

5w GU10 Lamp 420lm

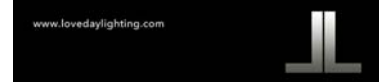
The following values are based on precise calculations performed on calibrated lamps and luminaires, and their configurations, whereby gradual, unavoidable deviations can occur in practice. All guarantee claims are excluded for the specified data.

This exclusion of liability applies irrespective of the legal grounds for both damages and consequential damages suffered by users and third parties.

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Object : Ramridge Farm
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1 Luminaire data

1.1 KSR Lighting, Riviera L 2CCT LED Up or D... (!KSR71140-27K)

1.1.1 Data sheet

Manufacturer: KSR Lighting

!KSR71140-27K Riviera L 2CCT LED Up or Down Wall Light

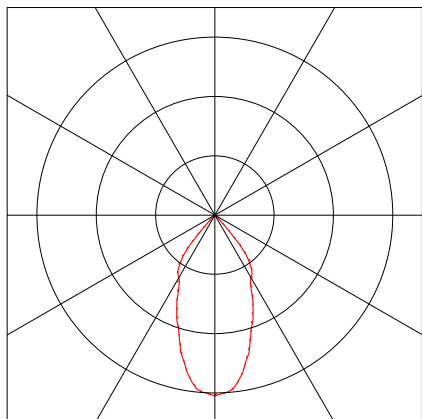
Luminaire data

Luminaire efficiency : 97.48%
Luminaire efficacy : 81.88 lm/W
Classification : A70 ↓100.0% ↑0.0%
CIE Flux Codes : 94 99 100 100 97
UGR 4H 8H : 17.5 / 17.8
Power : 5 W
Luminous flux : 409.4 lm

Equipped with

Quantity : 1
Designation : 1781CCT-Q5
Colour :
Luminous flux : 420 lm
Colour reproduction : 0

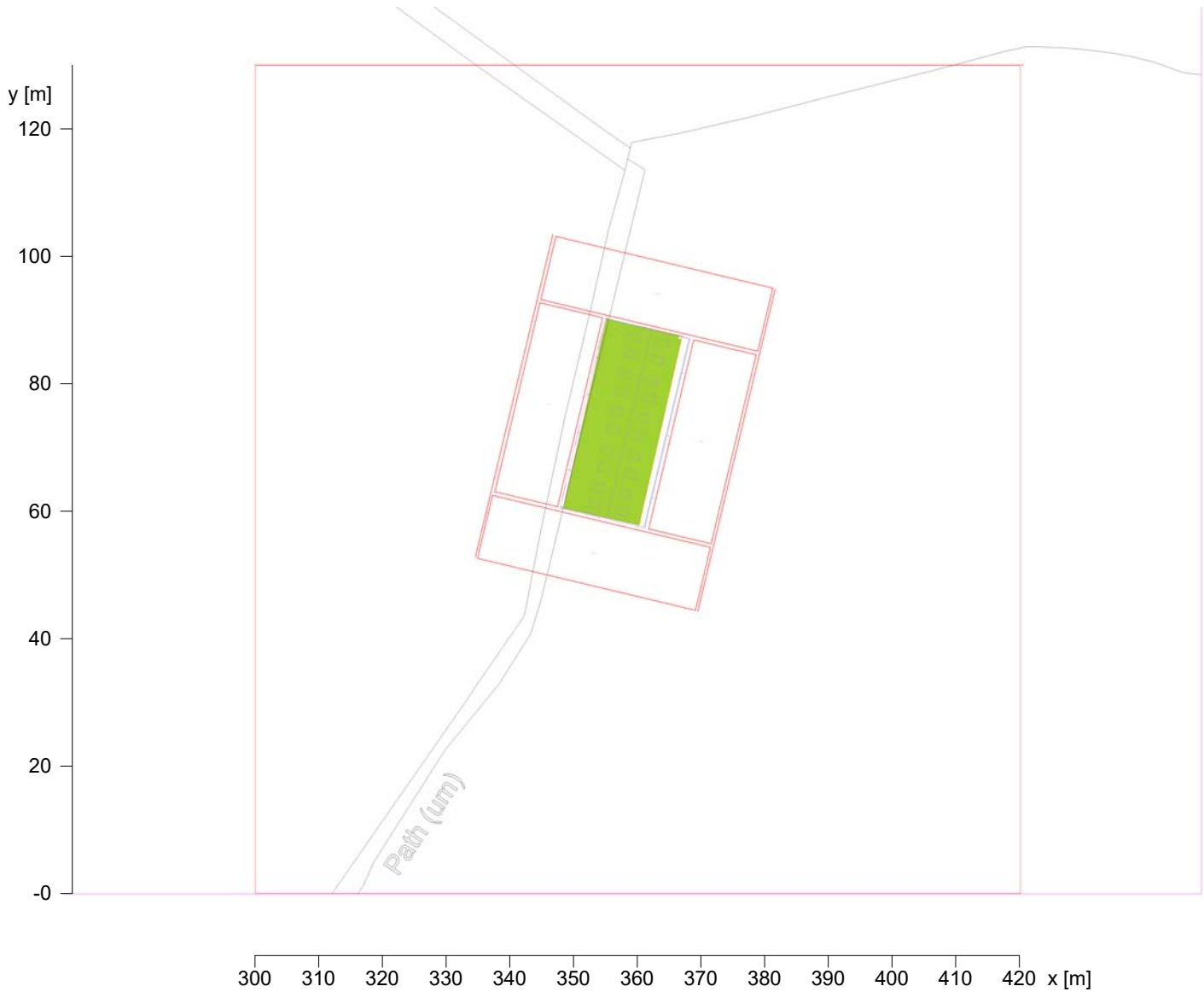
Dimensions : Ø70 mm x 150 mm



2 Exterior 1

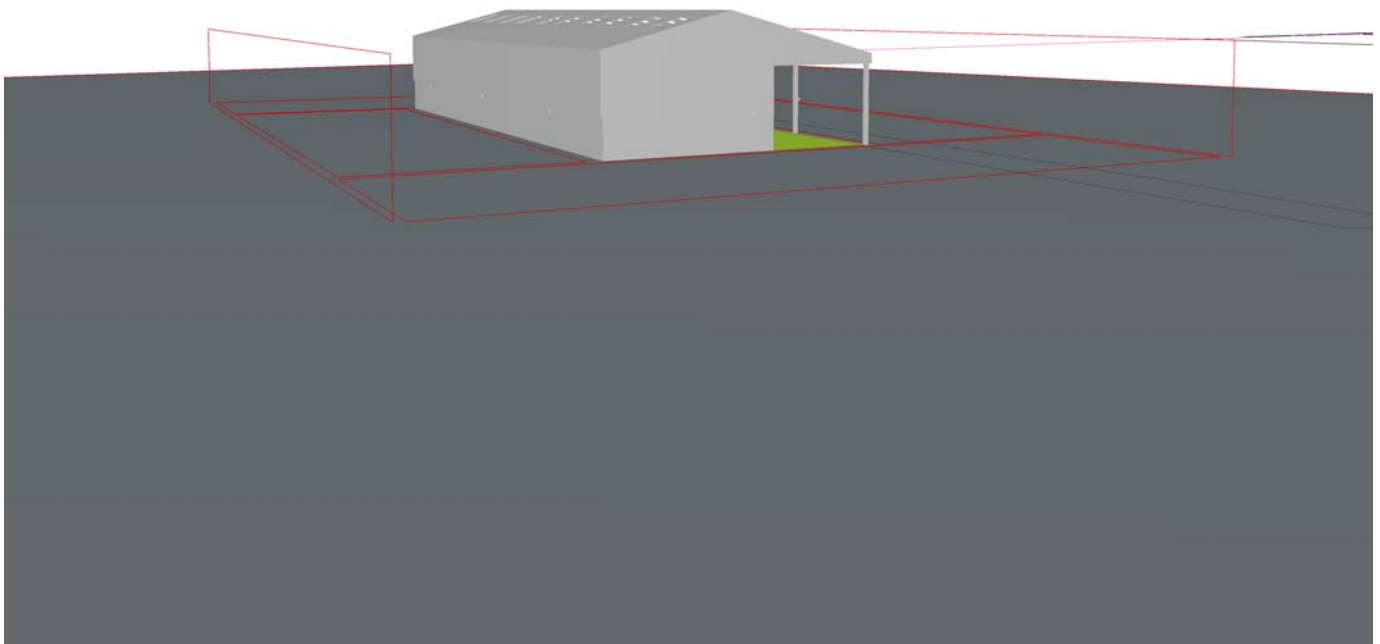
2.1 Description, Exterior 1

2.1.1 Floor plan



2.1 Description, Exterior 1

2.1.2 3D view, View 1



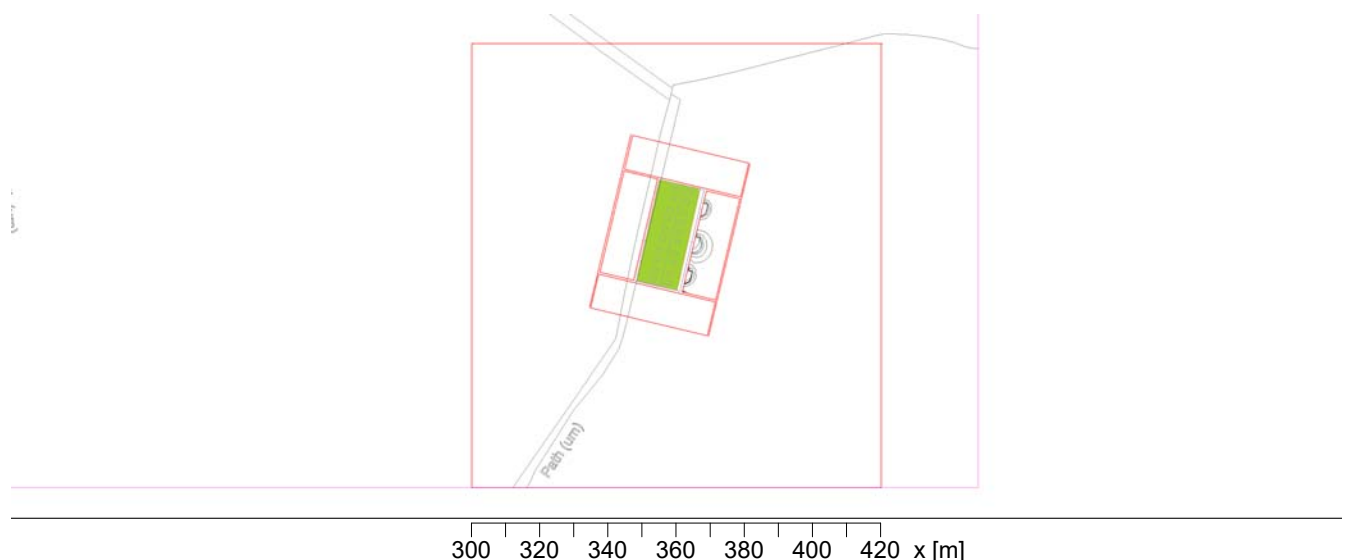
Object : Ramridge Farm
Installation : Proposed External Lighting
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2 Exterior 1

2.2 Summary, Exterior 1

2.2.1 Result overview, Behind Barn



General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.00 m
Height (phot centre) [m]:	1.72 m
Maintenance factor	0.80

Total luminous flux	5460 lm
Total power	65 W
Total power per area (15600.00 m ²)	0.00 W/m ²

Illuminance

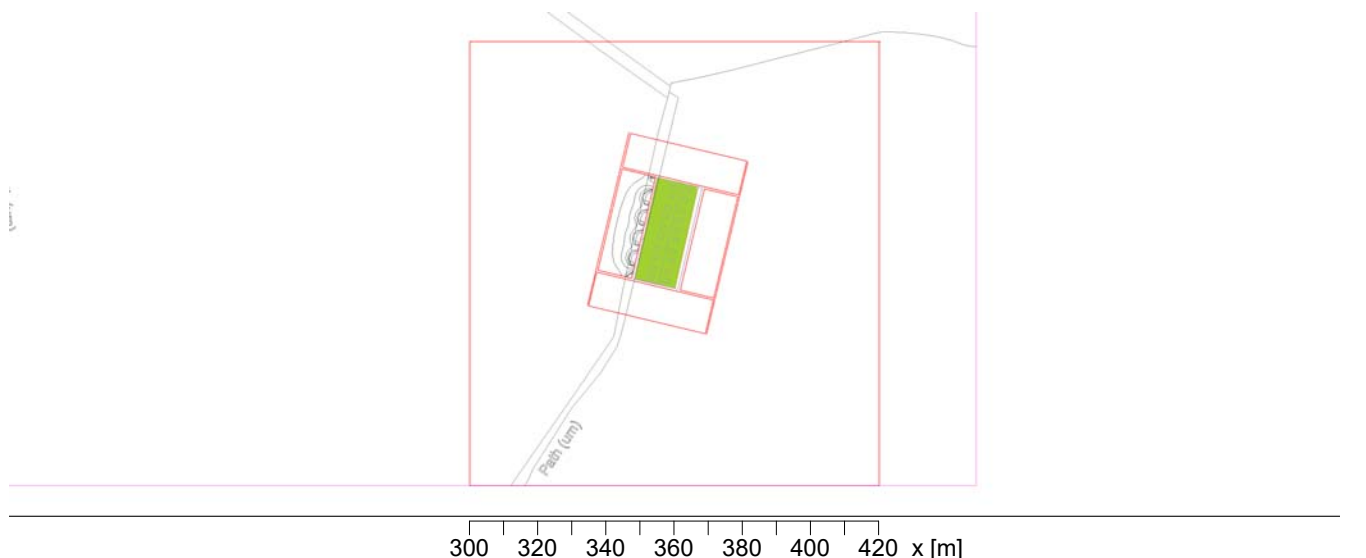
Average illuminance	$\bar{E}_m$	0.8 lx
Minimum illuminance	E_{min}	0 lx
Maximum illuminance	E_{max}	38.6 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:291 (0)
Diversity U_d	E_{min}/E_{max}	1:14000 (0)

Type No. \Make

1	13 x	KSR Lighting
	Order No.	: !KSR71140-27K
	Luminaire name	: Riviera L 2CCT LED Up or Down Wall Light
	Equipment	: 1 x 1781CCT-Q5 5 W / 420 lm

2.2 Summary, Exterior 1

2.2.2 Result overview, Front of Barn



General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.00 m
Height (phot centre) [m]:	1.72 m
Maintenance factor	0.80

Total luminous flux	5460 lm
Total power	65 W
Total power per area (15600.00 m²)	0.00 W/m²

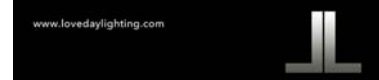
Illuminance

Average illuminance	$\bar{E}_m$	1.2 lx
Minimum illuminance	E_{min}	0 lx
Maximum illuminance	E_{max}	35.8 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:45.2 (0.02)
Diversity U_d	E_{min}/E_{max}	1:1310 (0)

Type No. \Make

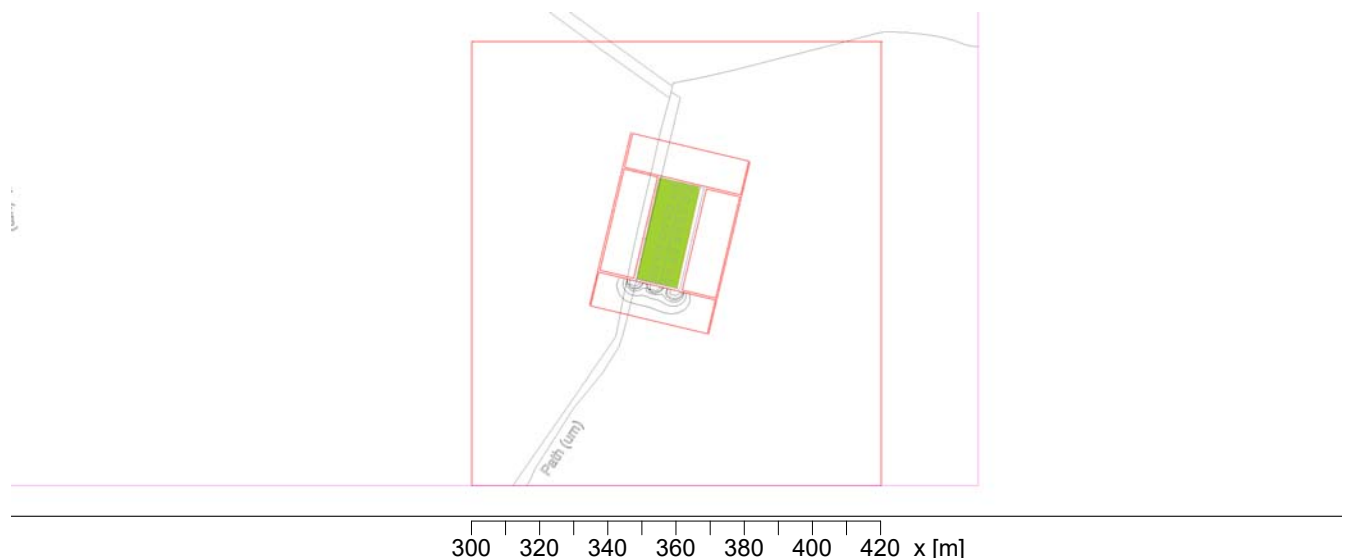
1	13 x	KSR Lighting
	Order No.	: !KSR71140-27K
	Luminaire name	: Riviera L 2CCT LED Up or Down Wall Light
	Equipment	: 1 x 1781CCT-Q5 5 W / 420 lm

Object : Ramridge Farm
Installation : Proposed External Lighting
Project number : LL1921-001
Date : 12.06.2025



2.2 Summary, Exterior 1

2.2.3 Result overview, Right Side of Barn



General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.00 m
Height (phot centre) [m]:	1.72 m
Maintenance factor	0.80

Total luminous flux	5460 lm
Total power	65 W
Total power per area (15600.00 m ²)	0.00 W/m ²

Illuminance

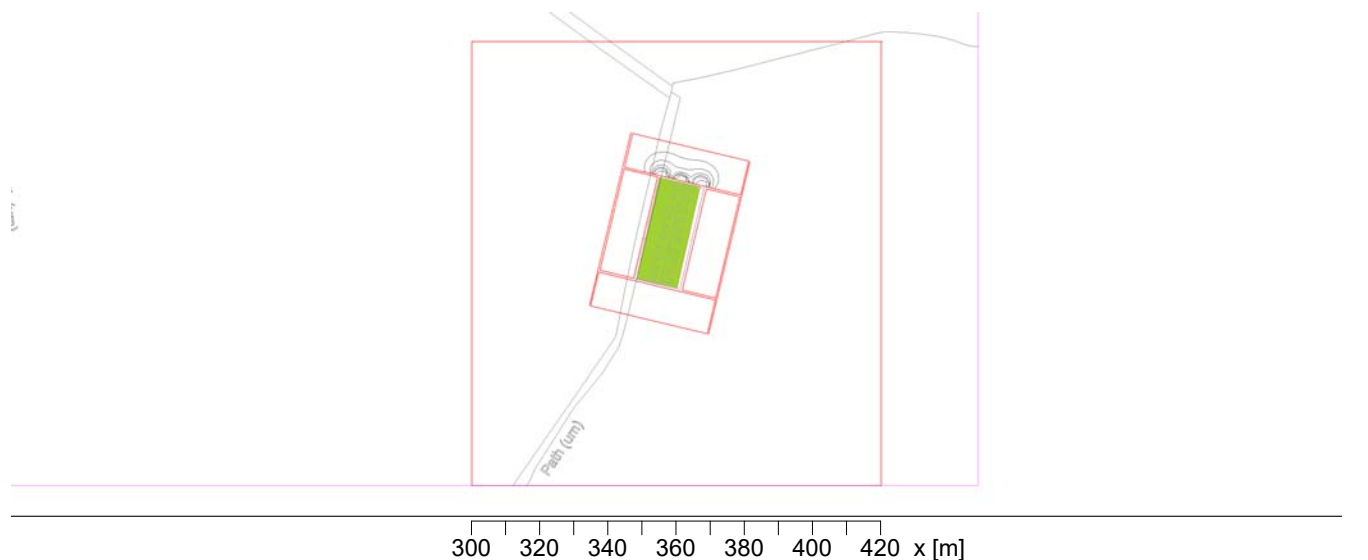
Average illuminance	$\bar{E}_m$	0.8 lx
Minimum illuminance	E_{min}	0 lx
Maximum illuminance	E_{max}	37.6 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:147 (0.01)
Diversity U_d	E_{min}/E_{max}	1:7010 (0)

Type No.\Make

1	13 x	KSR Lighting
	Order No.	: !KSR71140-27K
	Luminaire name	: Riviera L 2CCT LED Up or Down Wall Light
	Equipment	: 1 x 1781CCT-Q5 5 W / 420 lm

2.2 Summary, Exterior 1

2.2.4 Result overview, Left Side of Barn



General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.00 m
Height (phot centre) [m]:	1.72 m
Maintenance factor	0.80

Total luminous flux	5460 lm
Total power	65 W
Total power per area (15600.00 m²)	0.00 W/m²

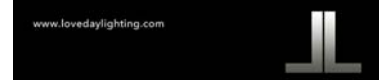
Illuminance

Average illuminance	$\bar{E}_m$	0.8 lx
Minimum illuminance	E_{min}	0 lx
Maximum illuminance	E_{max}	38.3 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:186 (0.01)
Diversity U_d	E_{min}/E_{max}	1:8880 (0)

Type No. \ Make

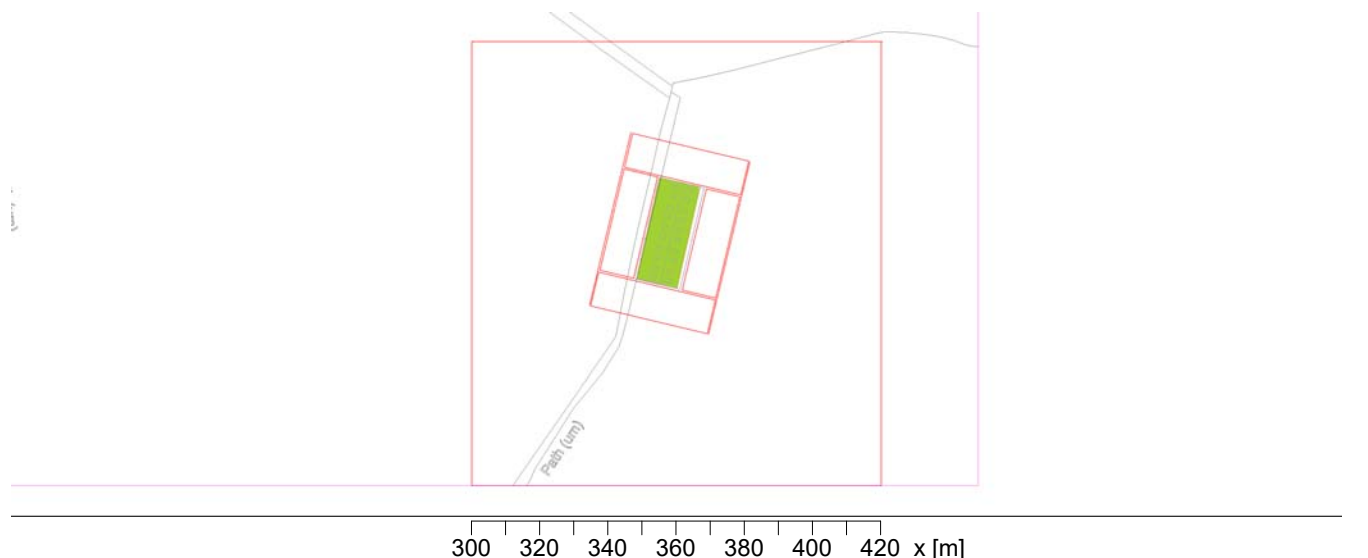
1	13 x	KSR Lighting
	Order No.	: !KSR71140-27K
	Luminaire name	: Riviera L 2CCT LED Up or Down Wall Light
	Equipment	: 1 x 1781CCT-Q5 5 W / 420 lm

Object : Ramridge Farm
Installation : Proposed External Lighting
Project number : LL1921-001
Date : 12.06.2025



2.2 Summary, Exterior 1

2.2.5 Result overview, Vertical Behind 10m Away 5m High



General

Calculation algorithm used	Average indirect fraction
Height (phot centre) [m]:	1.72 m
Maintenance factor	0.80
Total luminous flux	5460 lm
Total power	65 W
Total power per area (15600.00 m²)	0.00 W/m²

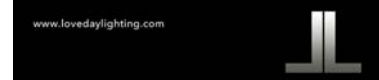
Illuminance

Average illuminance	$\bar{E}_m$	0.09 lx
Minimum illuminance	E_{min}	0.02 lx
Maximum illuminance	E_{max}	0.2 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:3.83 (0.26)
Diversity U_d	E_{min}/E_{max}	1:8.85 (0.11)

Type No. Make

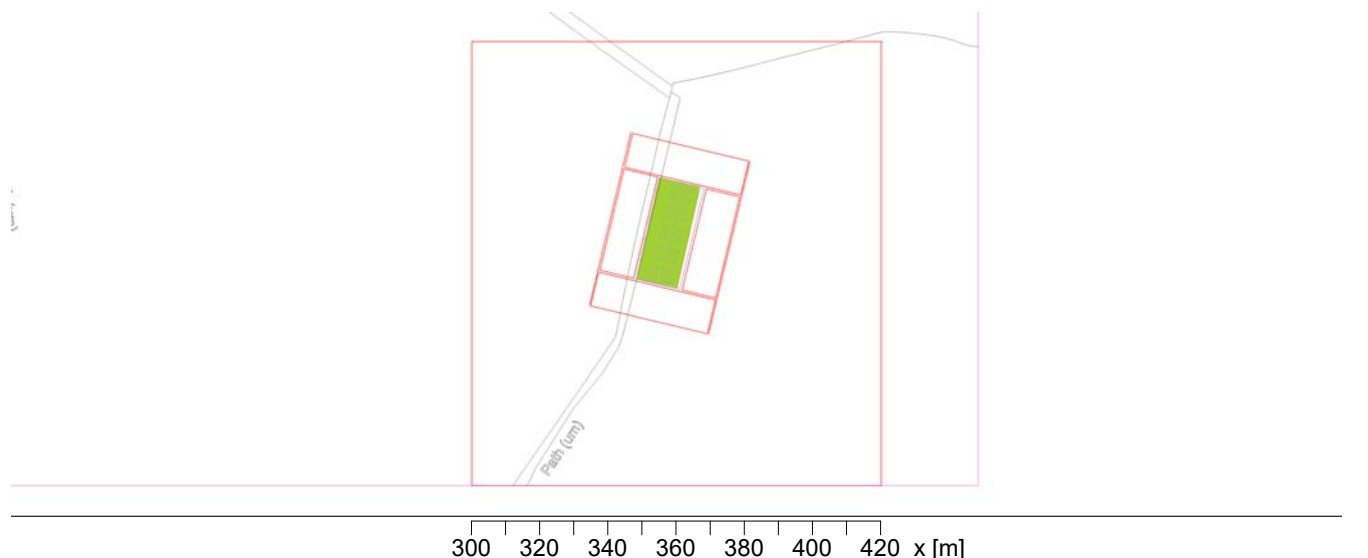
KSR Lighting	
1 13 x	Order No. : !KSR71140-27K
	Luminaire name : Riviera L 2CCT LED Up or Down Wall Light
	Equipment : 1 x 1781CCT-Q5 5 W / 420 lm

Object : Ramridge Farm
Installation : Proposed External Lighting
Project number : LL1921-001
Date : 12.06.2025



2.2 Summary, Exterior 1

2.2.6 Result overview, Vertical Front 10m Away 5m High



General

Calculation algorithm used	Average indirect fraction
Height (phot centre) [m]:	1.72 m
Maintenance factor	0.80
Total luminous flux	5460 lm
Total power	65 W
Total power per area (15600.00 m²)	0.00 W/m²

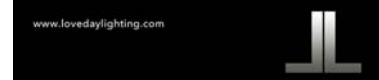
Illuminance

Average illuminance	$\bar{E}_m$	0.22 lx
Minimum illuminance	E_{min}	0.09 lx
Maximum illuminance	E_{max}	0.41 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:2.6 (0.38)
Diversity U_d	E_{min}/E_{max}	1:4.77 (0.21)

Type No. Make

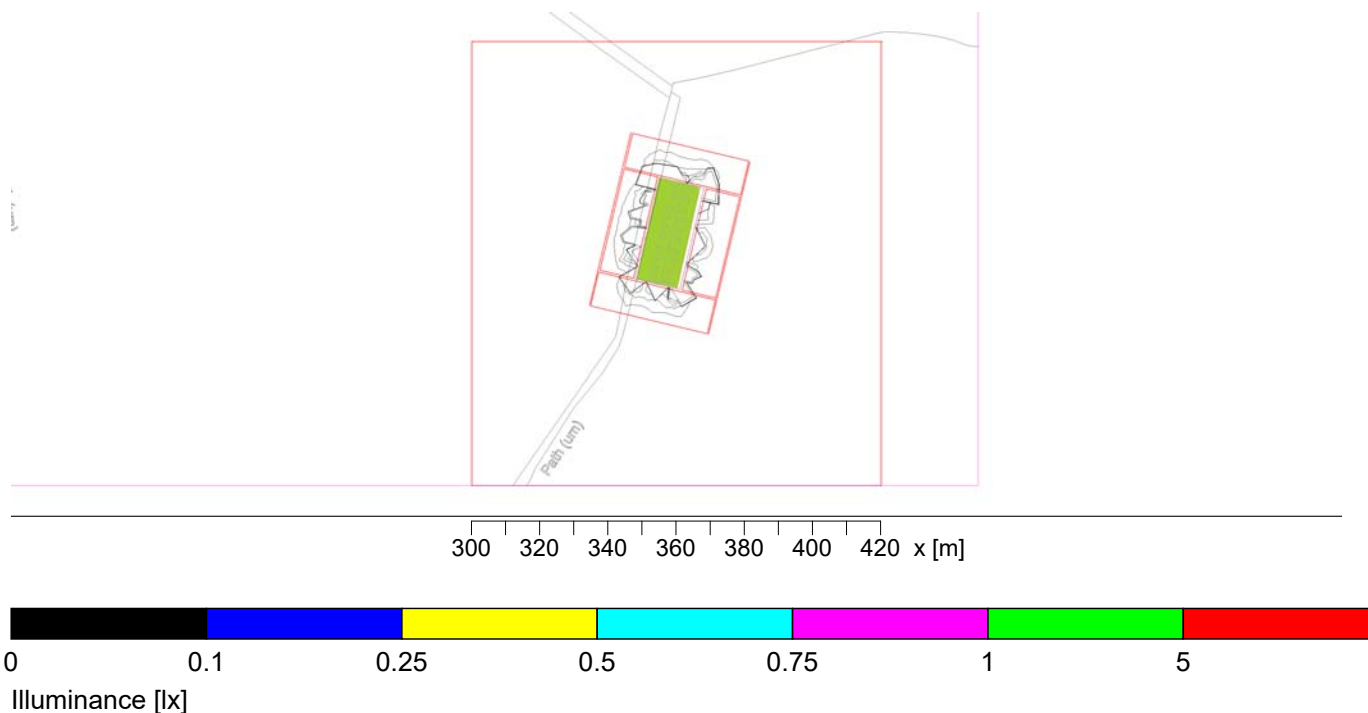
1	13 x	KSR Lighting
	Order No.	: !KSR71140-27K
	Luminaire name	: Riviera L 2CCT LED Up or Down Wall Light
	Equipment	: 1 x 1781CCT-Q5 5 W / 420 lm

Object : Ramridge Farm
Installation : Proposed External Lighting
Project number : LL1921-001
Date : 12.06.2025



2.2 Summary, Exterior 1

2.2.7 Result overview, Evaluation area 1



General

Calculation algorithm used	Average indirect fraction
Height (phot centre)	1.72 m
Maintenance factor	0.80
Total lamp luminous flux	5460 lm
Luminaire luminous flux	5323 lm
Total power	65.0 W
Total power per area (15600.00 m ²)	0.00 W/m ² (0.79 W/m ² /100lx)

Evaluation area 1

Reference plane 1.1

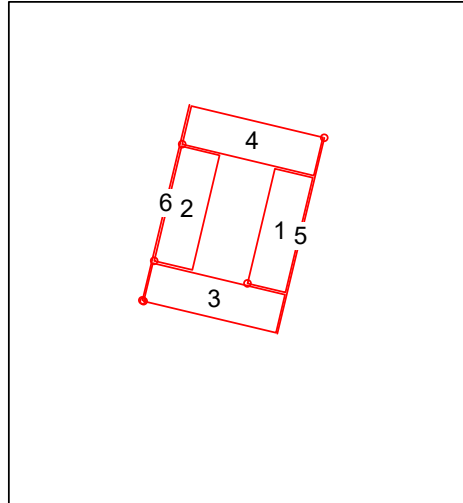
	Horizontal
E_m	0.53 lx
E_{min}	0 lx
$E_{min}/\bar{E}_m (U_o)$	---
$E_{min}/E_{max} (U_d)$	---
Position	0.00 m

Type No. \ Make

1	13 x	KSR Lighting
	Order No.	: !KSR71140-27K
	Luminaire name	: Riviera L 2CCT LED Up or Down Wall Light
	Equipment	: 1 x 1781CCT-Q5 5 W / 420 lm

2.2 Summary, Exterior 1

2.2.8 Result overview, Group 2



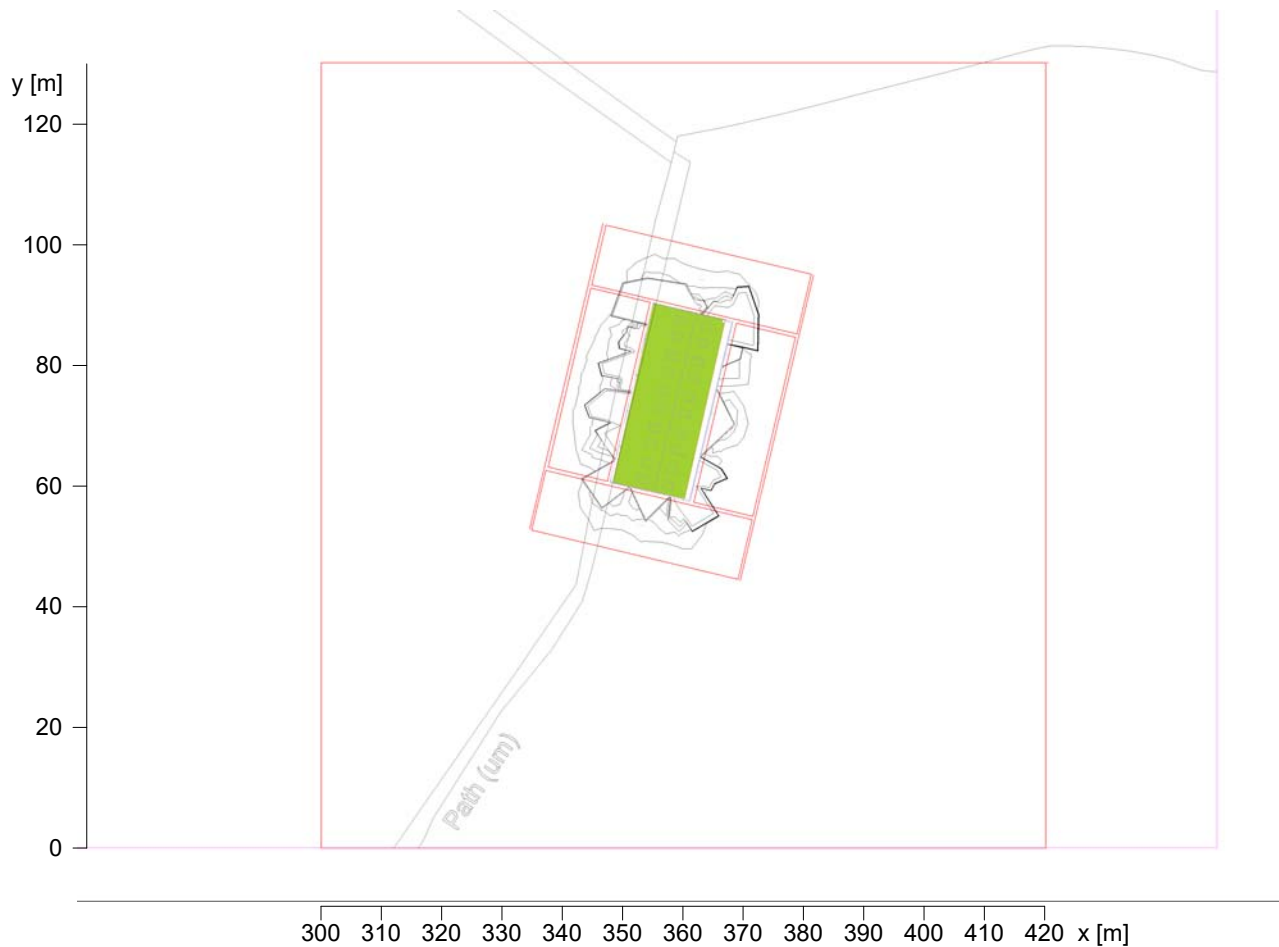
Illuminance

No.	Measuring surface	Grid	$\bar{E}_m$	E_{min}	E_{max}	U_o	U_d
2.1	Behind Barn	10 x 30	0.8 lx	0 lx	38.6 lx	0.00	0.00
2.2	Front of Barn	10 x 30	1.2 lx	0 lx	35.8 lx	0.02	0.00
2.3	Right Side of Barn	35 x 10	0.8 lx	0 lx	37.6 lx	0.01	0.00
2.4	Left Side of Barn	35 x 10	0.8 lx	0 lx	38.3 lx	0.01	0.00
2.5	Vertical Behind 10m Away 5m High	84 x 8	0.1 lx	0 lx	0.2 lx	0.26	0.11
2.6	Vertical Front 10m Away 5m High	84 x 8	0.2 lx	0.1 lx	0.4 lx	0.38	0.21
Summary			0.7 lx	0 lx	38.6 lx	0.00	0.00

2 Exterior 1

2.3 Calculation results, Exterior 1

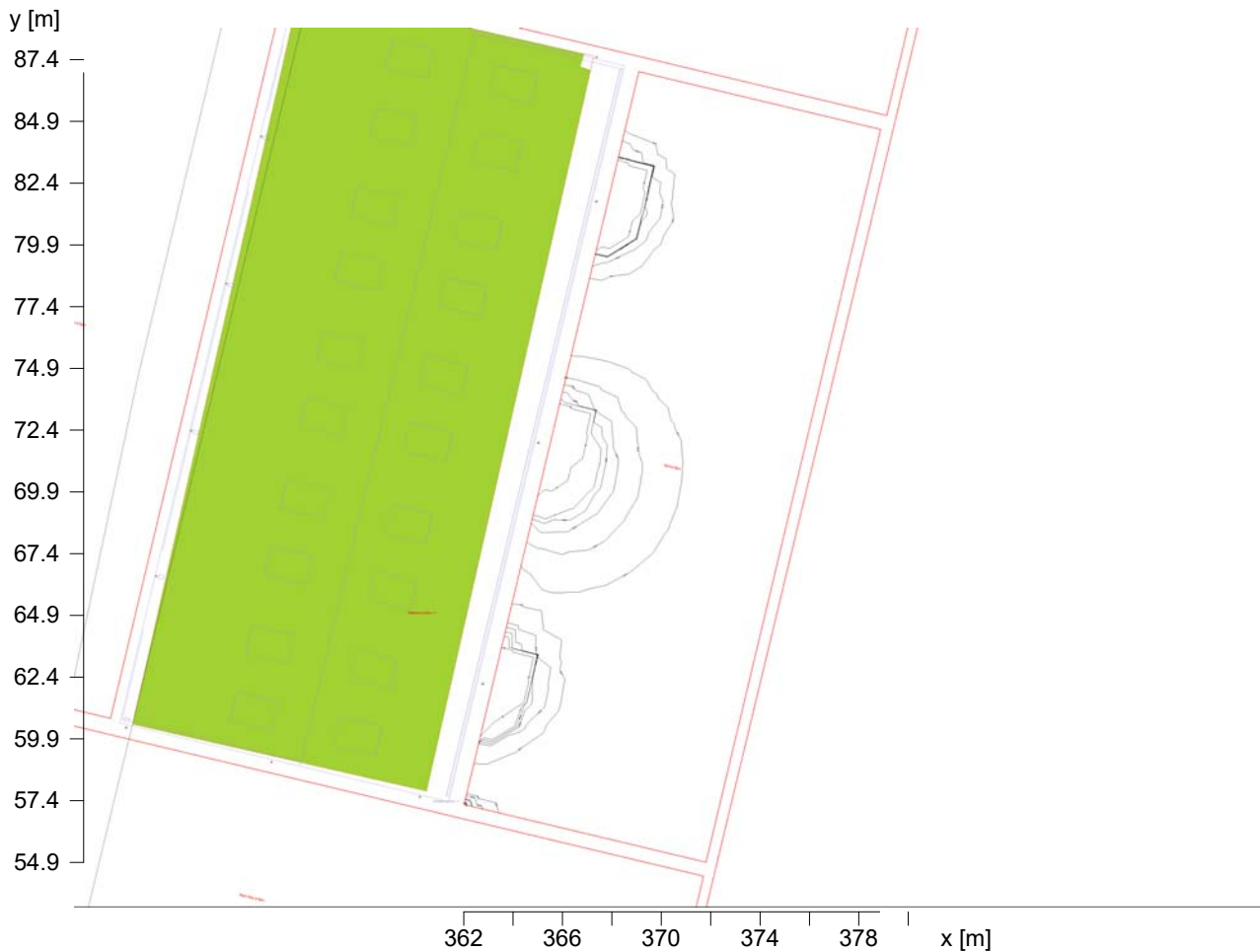
2.3.1 Pseudo colours, Reference plane 1.1 (E)



Height reference plane		: 0.00 m
Average illuminance	$\bar{E}_m$	: 0.5 lx
Minimum illuminance	E_{min}	: 0 lx
Maximum illuminance	E_{max}	: 80.4 lx
Uniformity U_0	$E_{min}/\bar{E}_m$	: ---

2.3 Calculation results, Exterior 1

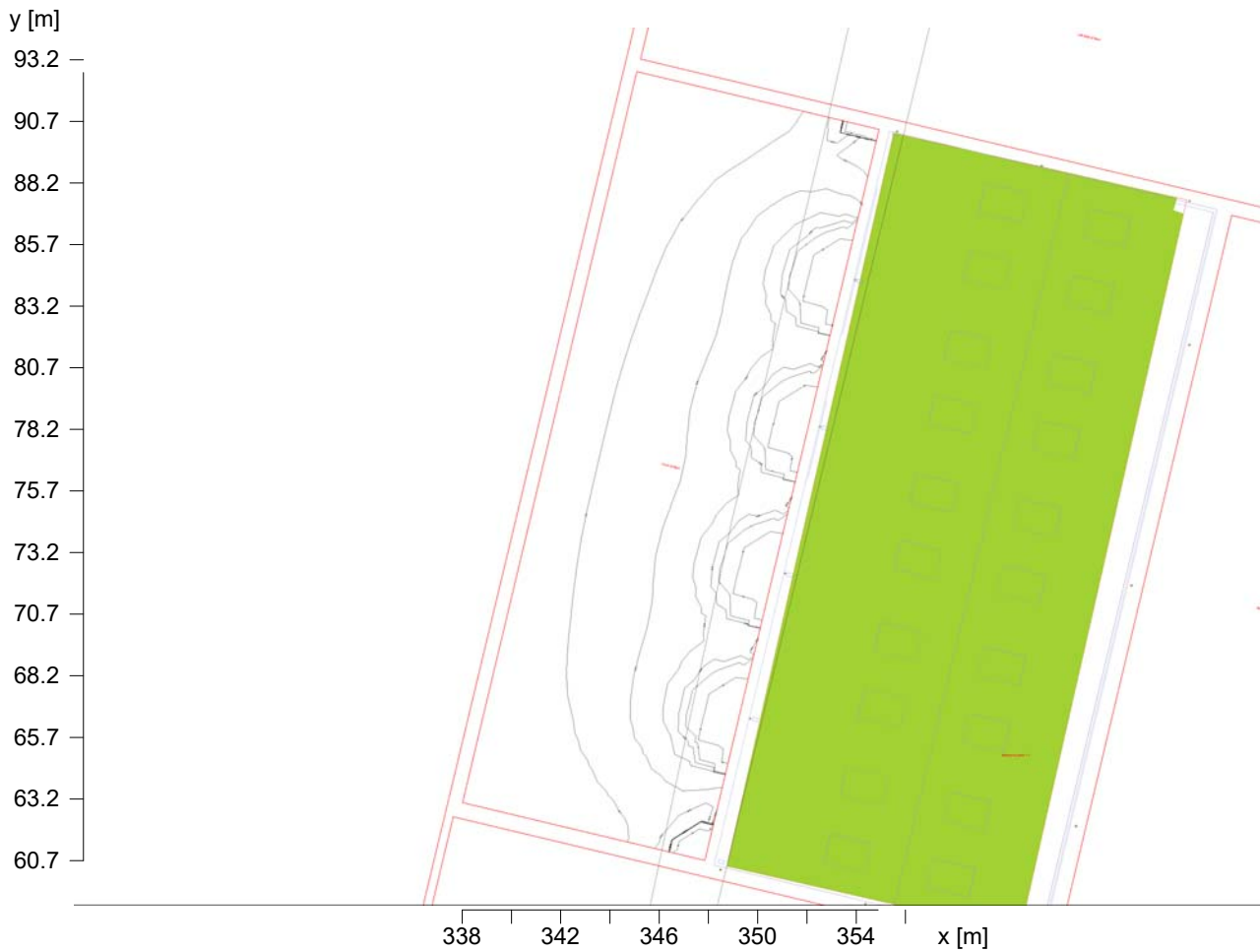
2.3.2 Pseudo colours, Behind Barn (E)



Height reference plane		: 0.00 m
Average illuminance	$\bar{E}_m$	: 0.8 lx
Minimum illuminance	E_{min}	: 0 lx
Maximum illuminance	E_{max}	: 38.6 lx
Uniformity U_0	$E_{min}/\bar{E}_m$	: 1 : 290.86 (0.00)

2.3 Calculation results, Exterior 1

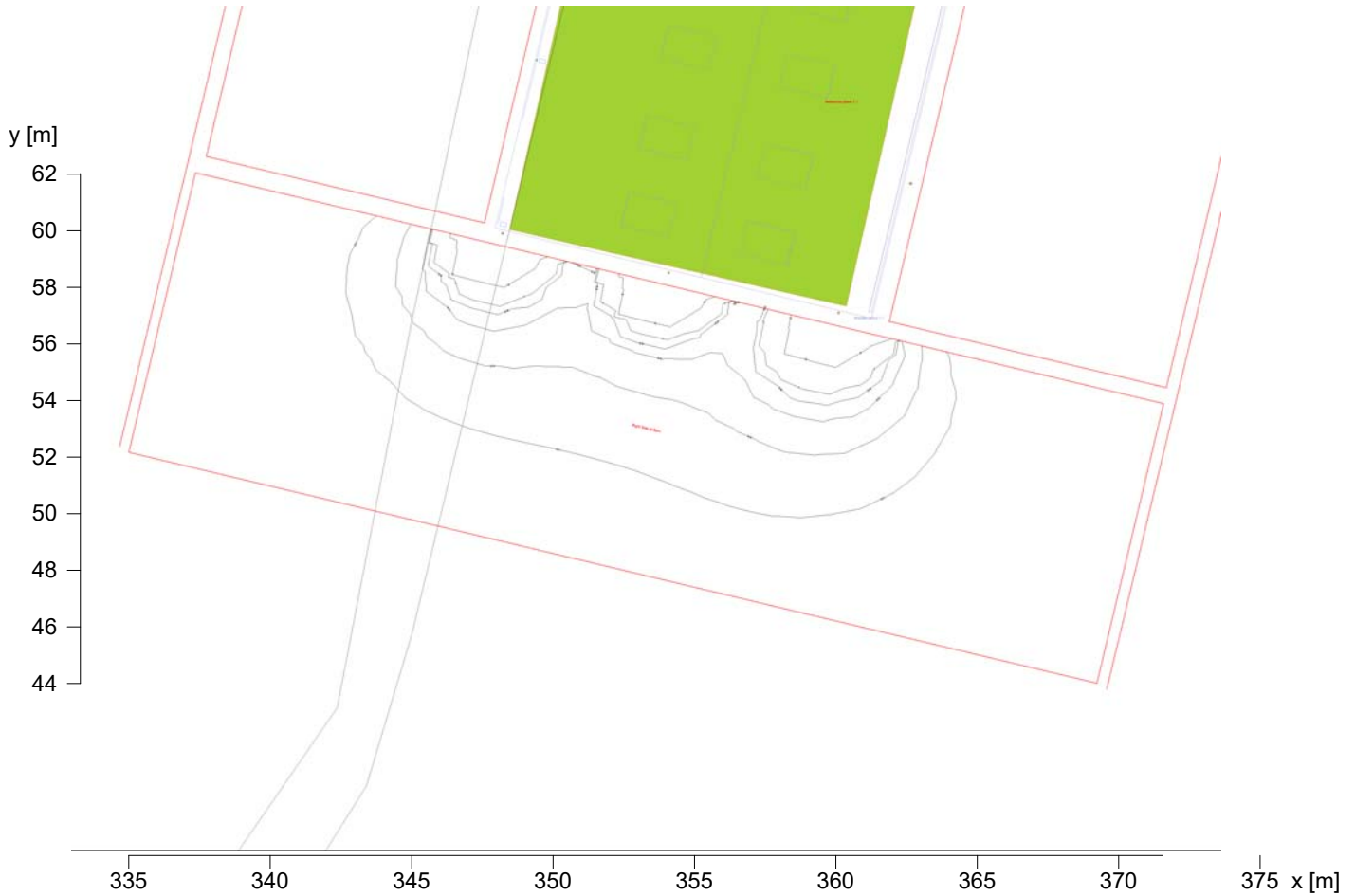
2.3.3 Pseudo colours, Front of Barn (E)



Height reference plane		: 0.00 m
Average illuminance	$\bar{E}_m$	: 1.2 lx
Minimum illuminance	E_{min}	: 0 lx
Maximum illuminance	E_{max}	: 35.8 lx
Uniformity U_0	$E_{min}/\bar{E}_m$	: 1 : 45.24 (0.02)

2.3 Calculation results, Exterior 1

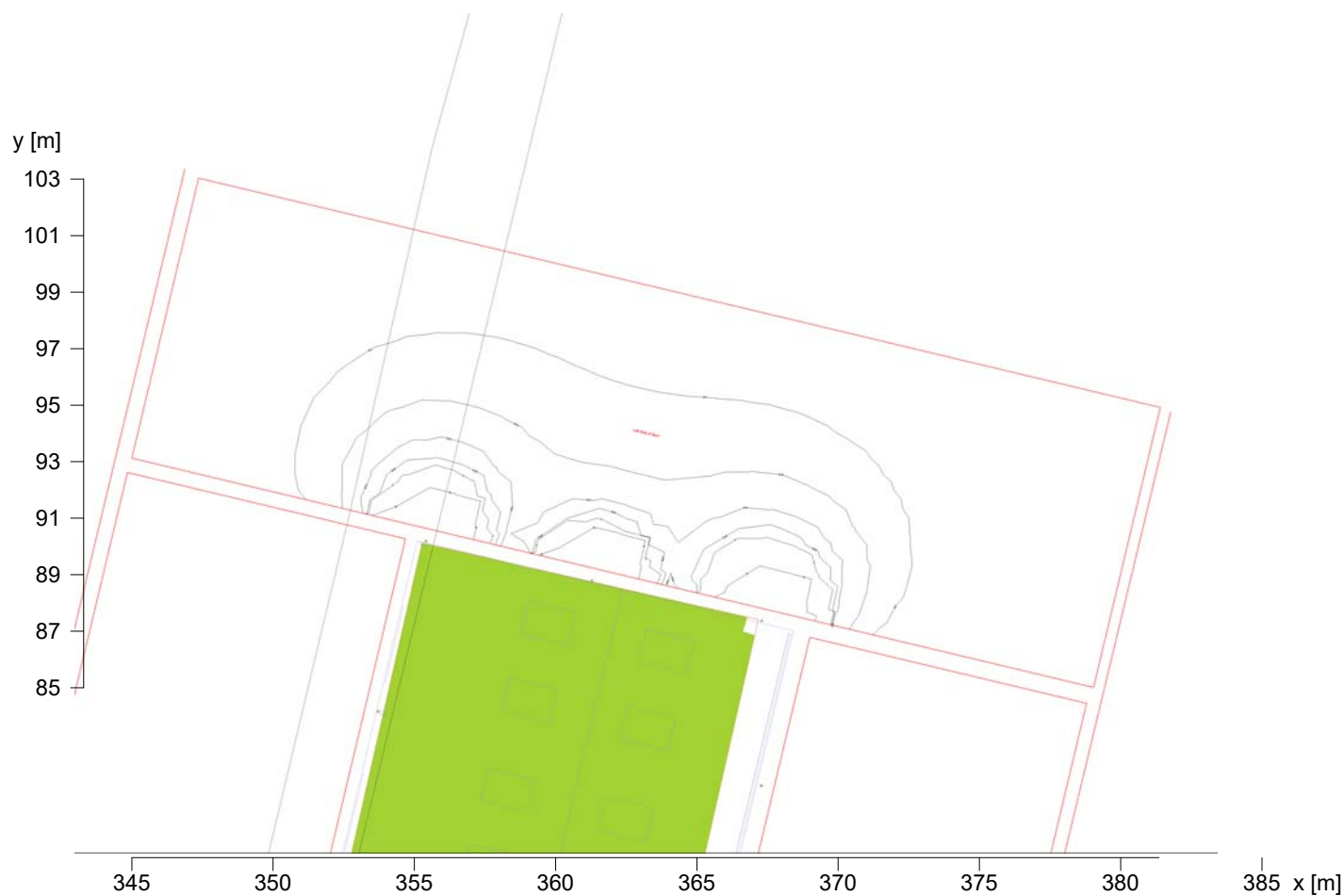
2.3.4 Pseudo colours, Right Side of Barn (E)



Height reference plane		: 0.00 m
Average illuminance	$\bar{E}_m$	: 0.8 lx
Minimum illuminance	E_{min}	: 0 lx
Maximum illuminance	E_{max}	: 37.6 lx
Uniformity U_0	$E_{min}/\bar{E}_m$	: 1 : 147.13 (0.01)

2.3 Calculation results, Exterior 1

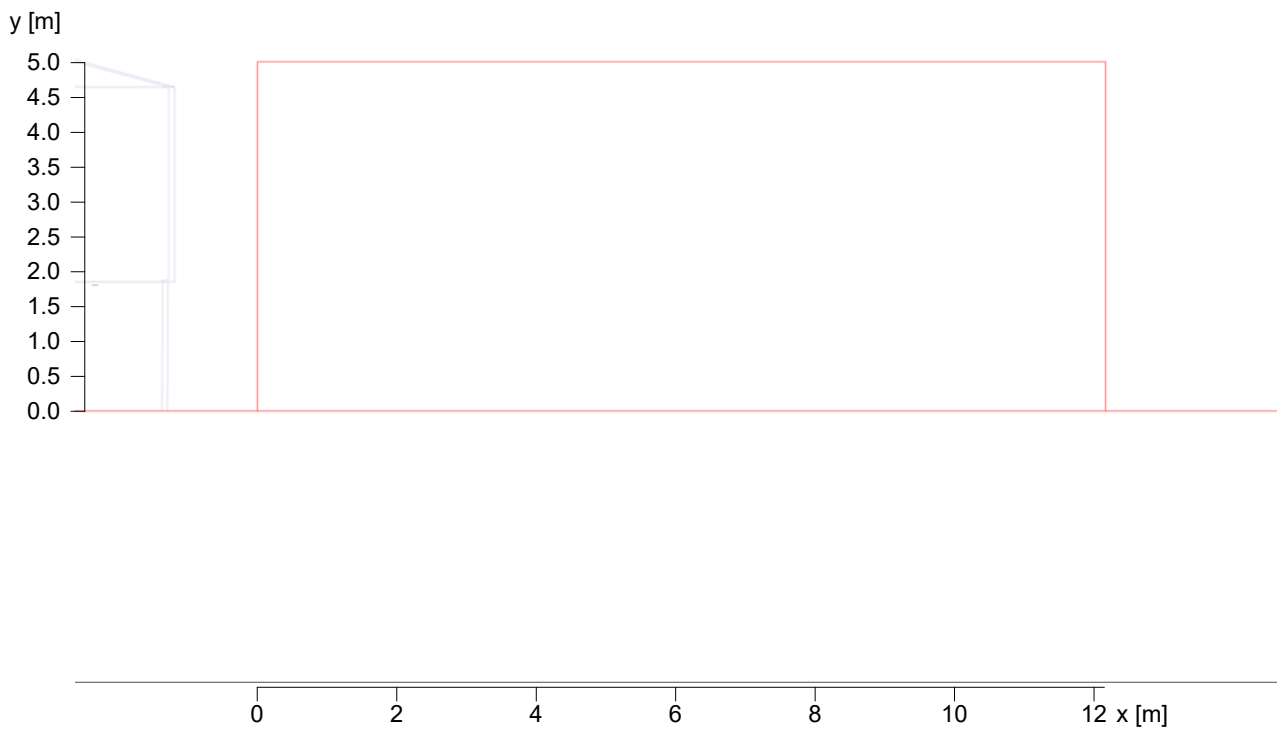
2.3.5 Pseudo colours, Left Side of Barn (E)



Height reference plane		: 0.00 m
Average illuminance	$\bar{E}_m$	: 0.8 lx
Minimum illuminance	E_{min}	: 0 lx
Maximum illuminance	E_{max}	: 38.3 lx
Uniformity U_0	$E_{min}/\bar{E}_m$	: 1 : 186.00 (0.01)

2.3 Calculation results, Exterior 1

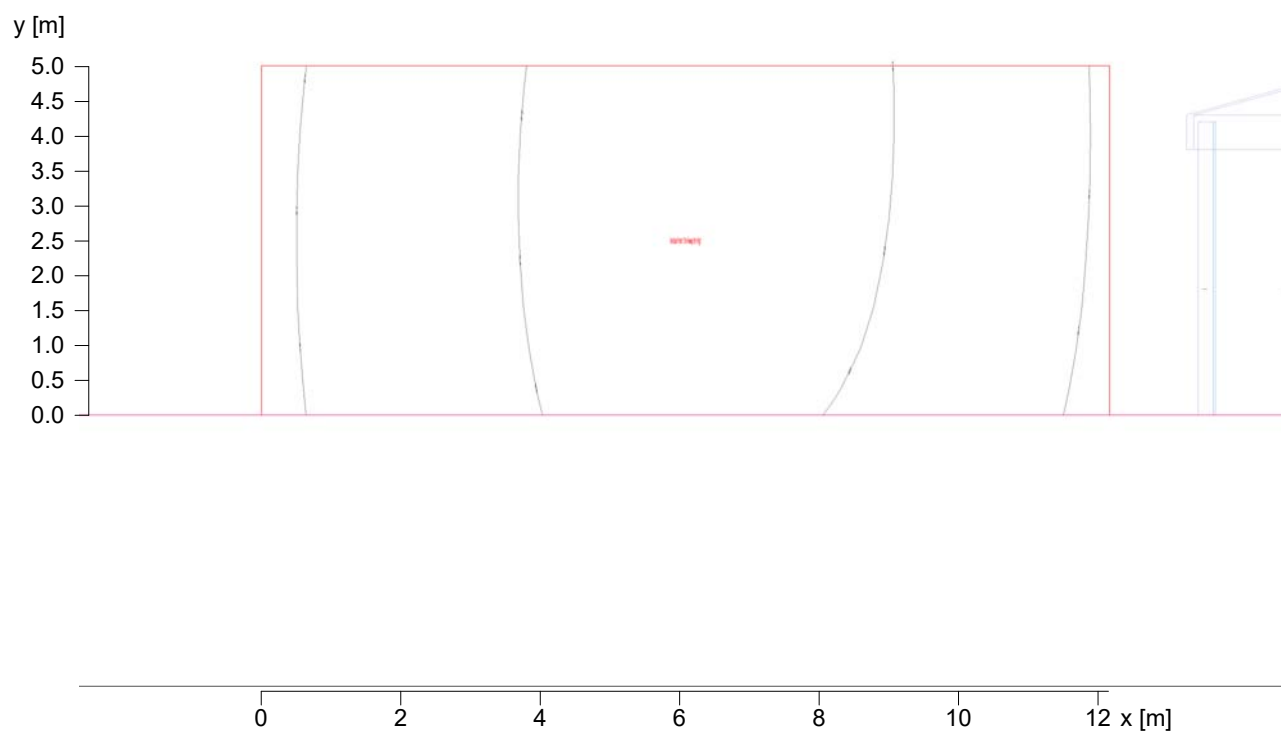
2.3.6 Pseudo colours, Vertical Behind 10m Away 5m High (E)



Average illuminance	$\bar{E}_m$	: 0.09 lx
Minimum illuminance	E_{min}	: 0.02 lx
Maximum illuminance	E_{max}	: 0.2 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	: 1 : 3.83 (0.26)

2.3 Calculation results, Exterior 1

2.3.7 Pseudo colours, Vertical Front 10m Away 5m High (E)



Average illuminance	$\bar{E}_m$	: 0.22 lx
Minimum illuminance	E_{min}	: 0.09 lx
Maximum illuminance	E_{max}	: 0.41 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	: 1 : 2.60 (0.38)

2 Exterior 1

2.4 Calculation results, Exterior 1

2.4.1 3D luminance (raytracing), Variable view 1



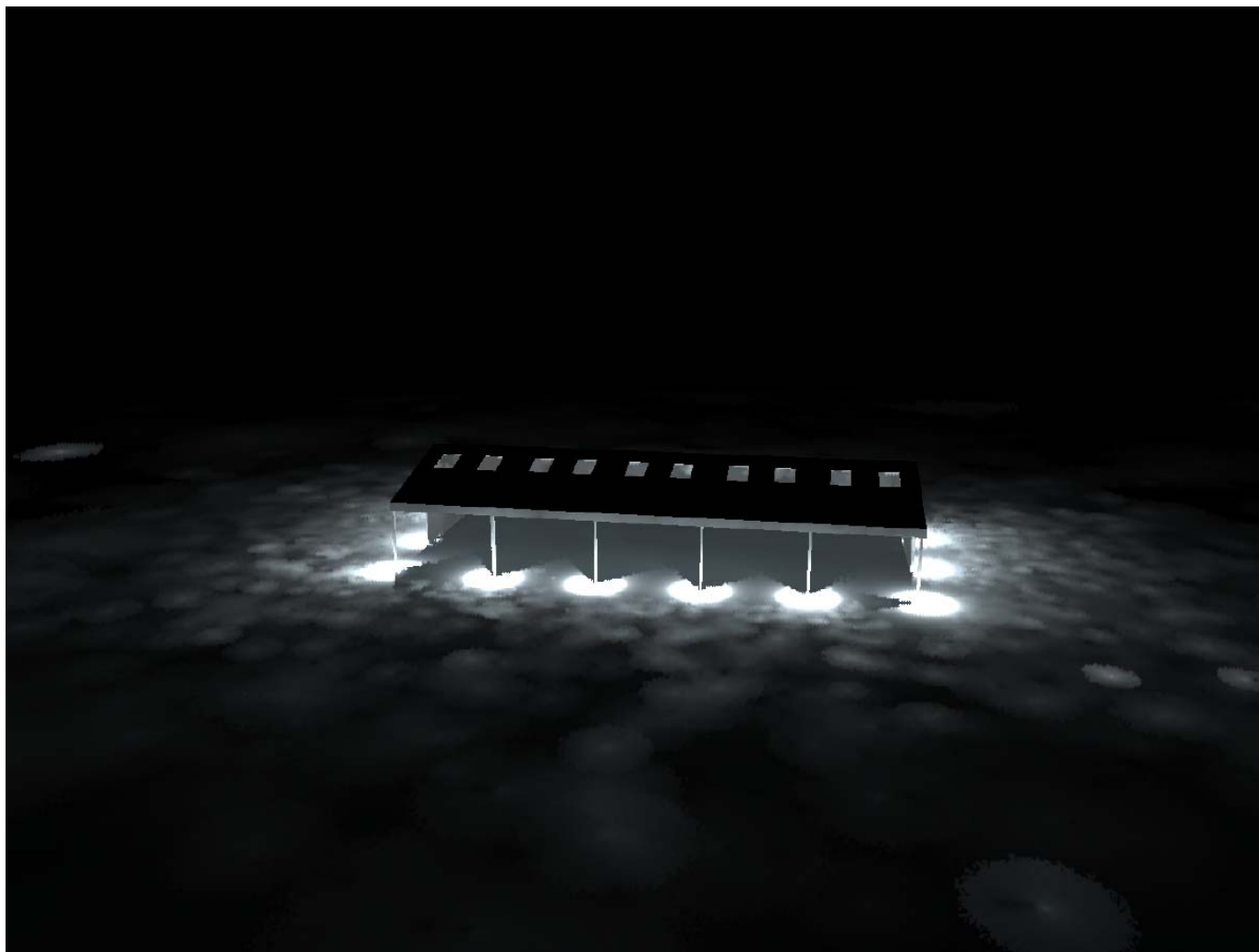
Luminance in the illustration:

Minimum: : 0 cd/m²
Maximum: : 9.2 cd/m²

Artificial light calculation : Direct part, with 2 inter-reflections

2.4 Calculation results, Exterior 1

2.4.2 3D luminance (raytracing), Variable view 2



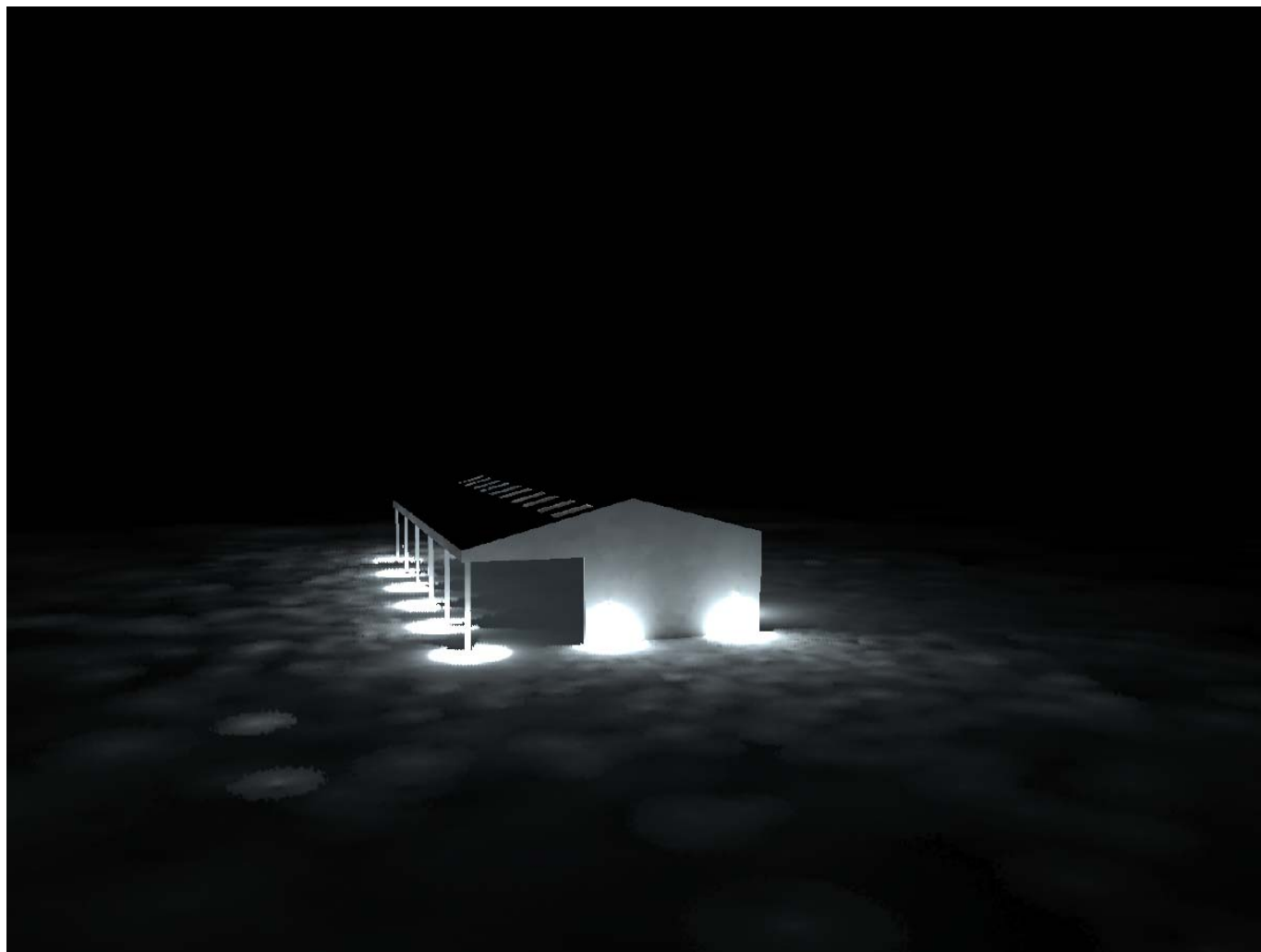
Luminance in the illustration:

Minimum: : 0 cd/m²
Maximum: : 433 cd/m²

Artificial light calculation : Direct part, with 2 inter-reflections

2.4 Calculation results, Exterior 1

2.4.3 3D luminance (raytracing), Variable view 3



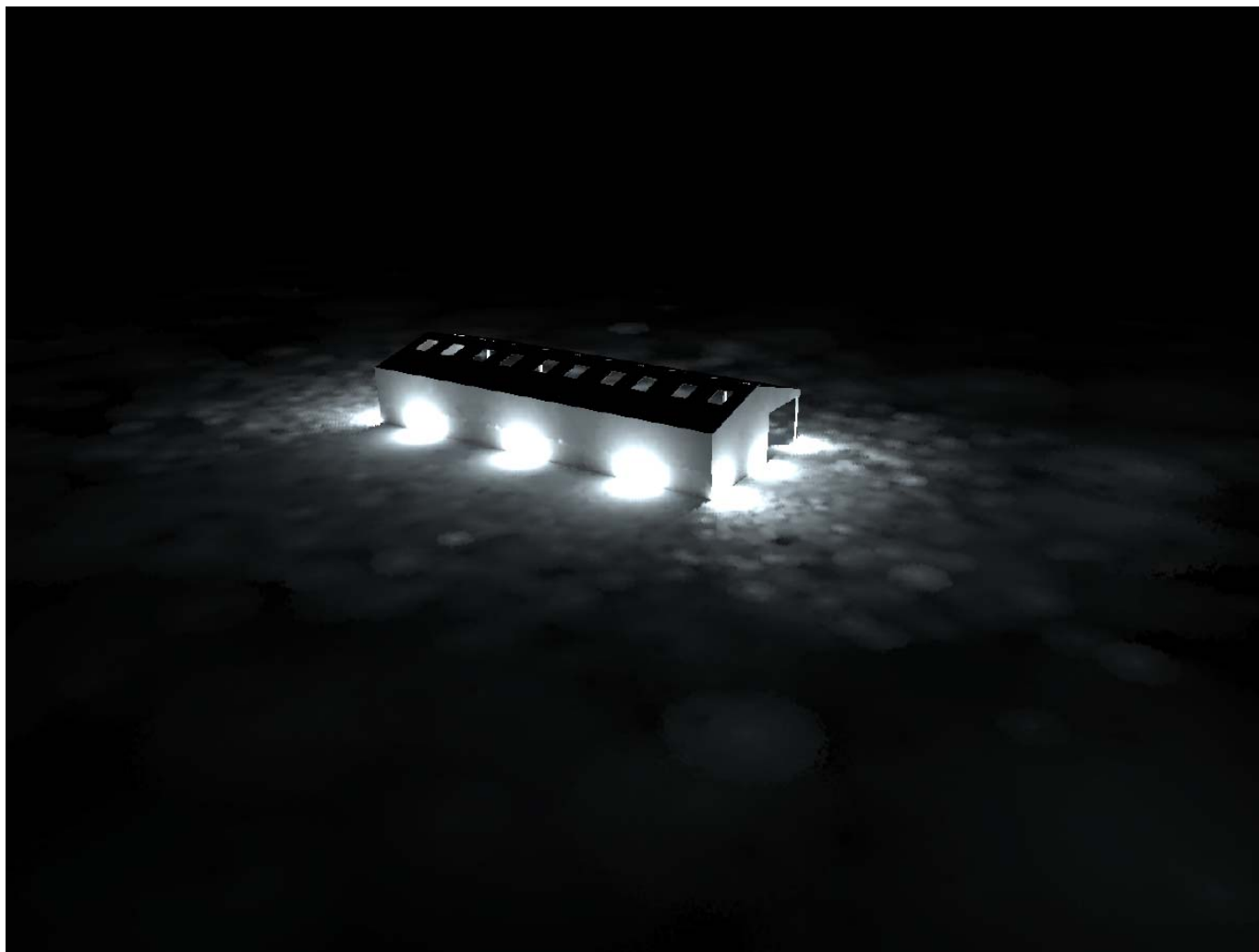
Luminance in the illustration:

Minimum: : 0 cd/m²
Maximum: : 643 cd/m²

Artificial light calculation : Direct part, with 2 inter-reflections

2.4 Calculation results, Exterior 1

2.4.4 3D luminance (raytracing), Variable view 4



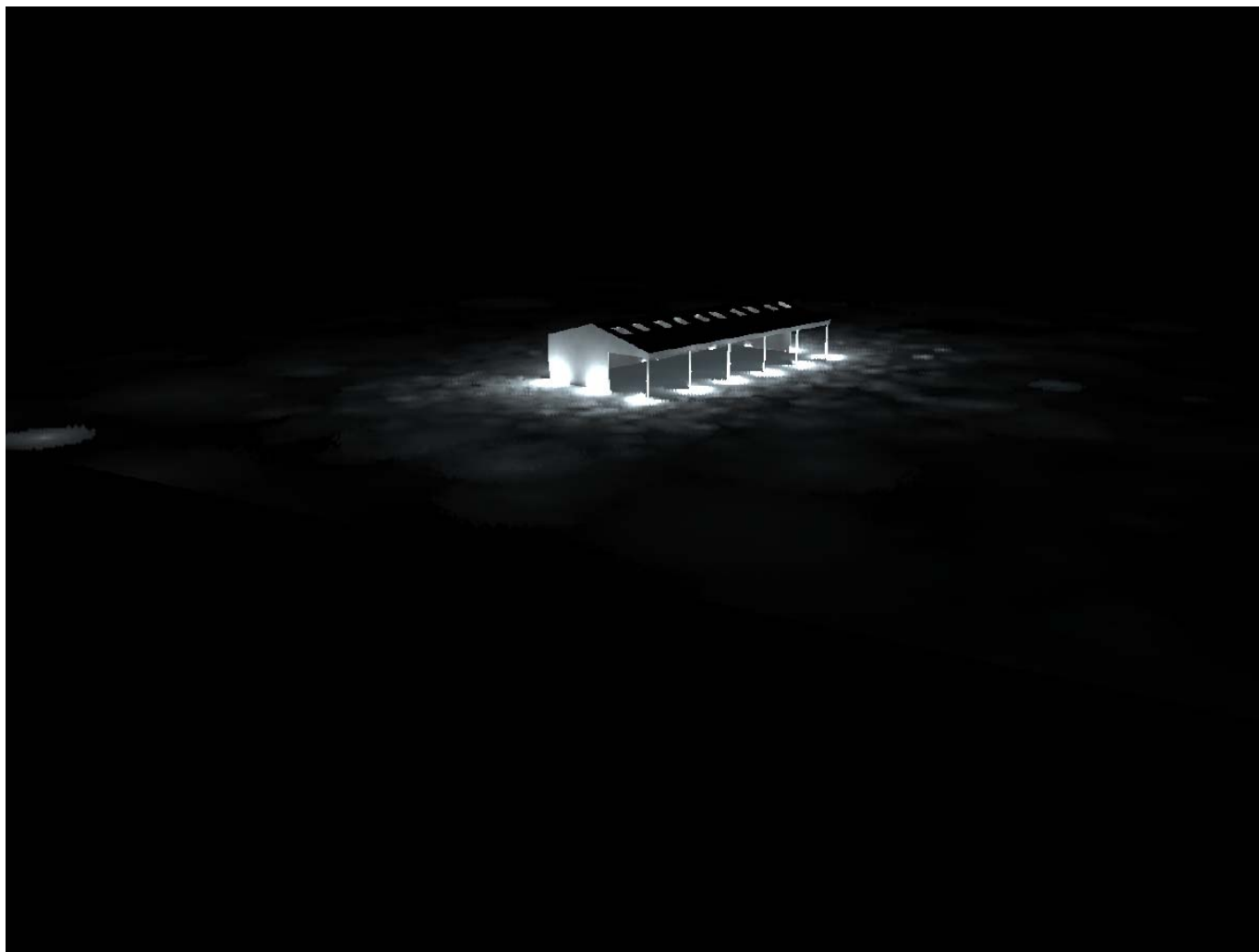
Luminance in the illustration:

Minimum: : 0 cd/m²
Maximum: : 184 cd/m²

Artificial light calculation : Direct part, with 2 inter-reflections

2.4 Calculation results, Exterior 1

2.4.5 3D luminance (raytracing), Variable view 5



Luminance in the illustration:

Minimum: : 0 cd/m²
Maximum: : 375 cd/m²

Artificial light calculation : Direct part, with 2 inter-reflections
