

Scout Hut - 2nd & 9th Scout Group - 18 St Catherines Rd

Installation : External Lighting

Project number : 043125-00019

Customer : LIGHT ON LINE LTD

Processed by : Paul Cook

Date : 19.02.2025

Project description:
R1

Sample area lighting calculations to check luminaire specification

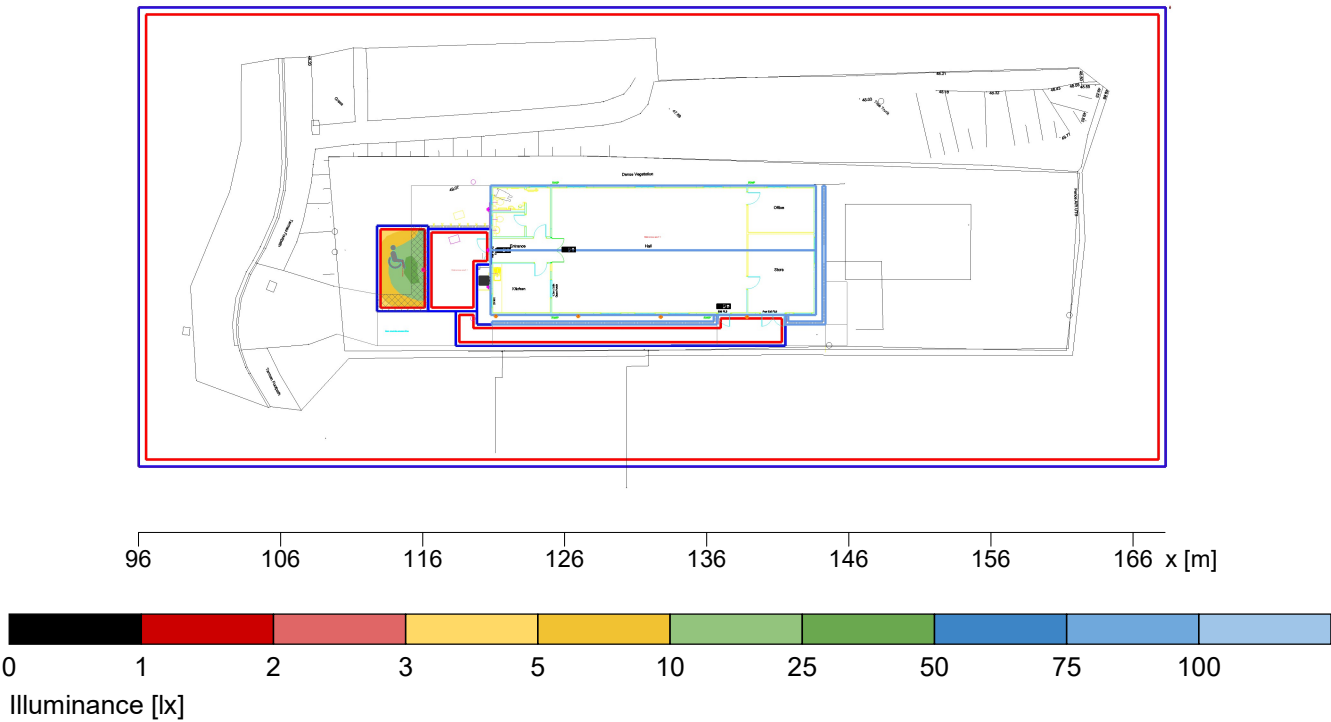
The following values are based on precise calculations performed on calibrated lamps and luminaires, and their configurations, whereby gradual, unavoidable deviations can occur in practice. All guarantee claims are excluded for the specified data.

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

1 Exterior 1 - R1

1.1 Summary, Exterior 1 - R1

1.1.1 Result overview, Evaluation area 4



General	
Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	2000.00 lm
Total power	12.4 W
Total power per area (21.60 m²)	0.57 W/m² (4.30 W/m²/100lx)

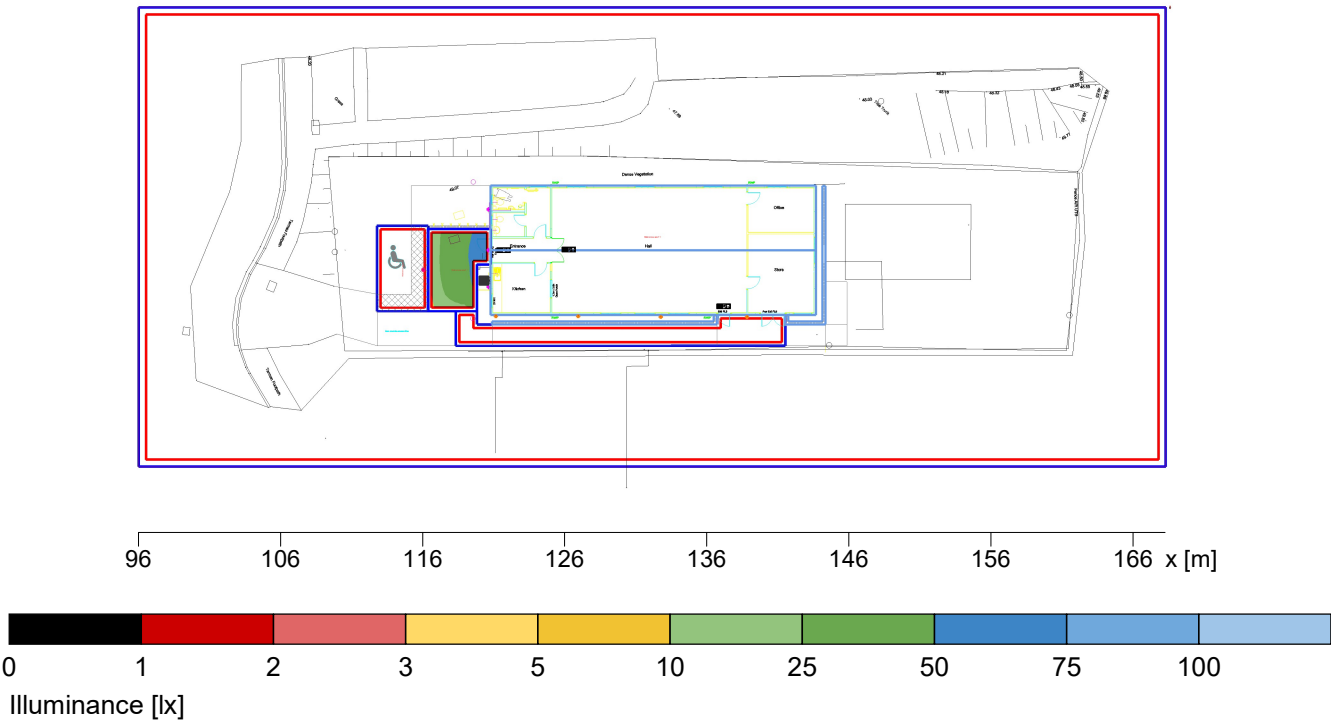
Evaluation area 4	Reference plane 4.1
	Horizontal
$\bar{E}_m$	13.4 lx
E_{min}	4.3 lx
$E_{min}/\bar{E}_m (U_o)$	0.33
$E_{min}/E_{max} (U_d)$	0.10
Position	0.00 m

Type No.\Make

4 1 x	iGuzzini	
	Order No.	: BW79_X023
	Luminaire name	: iWay - round
	Equipment	: 1 x LED 12.4 W / 2000 lm

1.1 Summary, Exterior 1 - R1

1.1.2 Result overview, Evaluation area 5



General	
Calculation algorithm used	Average indirect fraction
Position	0.30 m
Maintenance factor	0.80
Total luminous flux	1040.00 lm
Total power	7.1 W
Total power per area (22.33 m²)	0.32 W/m² (0.86 W/m²/100lx)

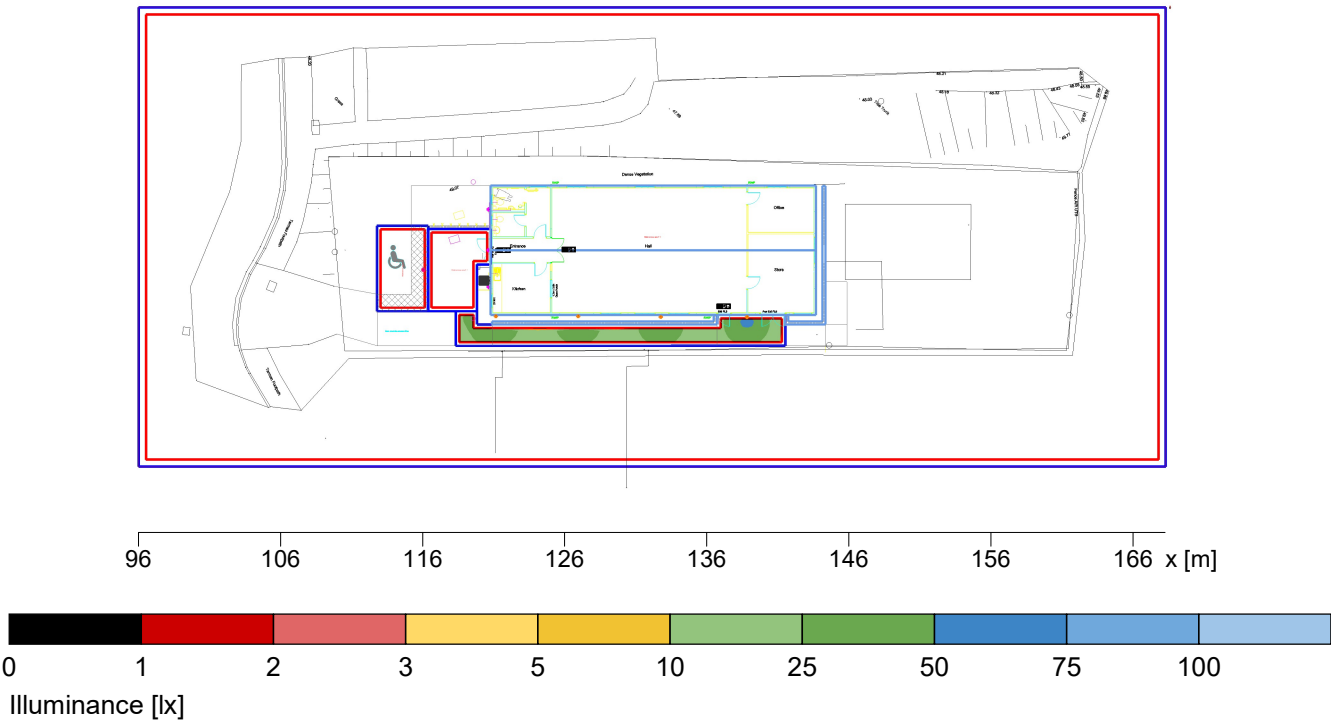
Evaluation area 5	Reference plane 5.1
	Horizontal
$\bar{E}_m$	36.9 lx
E_{min}	12.4 lx
$E_{min}/\bar{E}_m (U_o)$	0.34
$E_{min}/E_{max} (U_d)$	0.19
Position	0.00 m

Type No. Make

2 1 x	iGuzzini	
	Order No.	: S658_X799-01
	Luminaire name	: Allure - 120x150 mm
	Equipment	: 1 x LED 7.1 W / 1040 lm

1.1 Summary, Exterior 1 - R1

1.1.3 Result overview, Evaluation area 6



General	
Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	1040.00 lm
Total power	7.1 W
Total power per area (39.41 m²)	0.18 W/m² (0.68 W/m²/100lx)

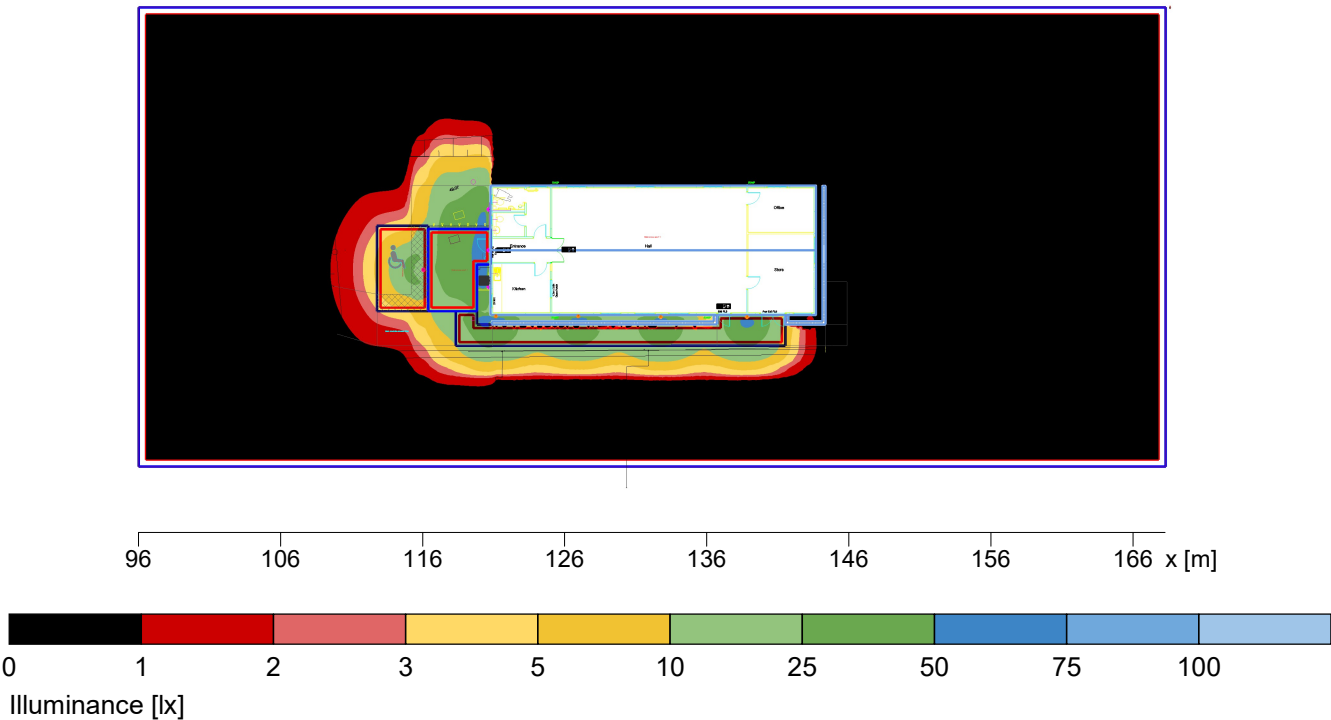
Evaluation area 6	Reference plane 6.1
	Horizontal
$\bar{E}_m$	26.4 lx
E_{min}	10.3 lx
$E_{min}/\bar{E}_m (U_o)$	0.39
$E_{min}/E_{max} (U_d)$	0.19
Position	0.00 m (rot: 0°/0°)

Type No.\Make

3 1 x	iGuzzini	
	Order No.	: S650_X799-01
	Luminaire name	: Allure - 120x150 mm
	Equipment	: 1 x LED 7.1 W / 1040 lm

1.1 Summary, Exterior 1 - R1

1.1.4 Result overview, Evaluation area 7



General	
Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	9280.00 lm
Total power	62.1 W
Total power per area (2330.82 m²)	0.03 W/m² (1.53 W/m²/100lx)

Evaluation area 7	Reference plane 7.1
$\bar{E}_m$	Horizontal
E_{min}	1.74 lx
$E_{min}/\bar{E}_m (U_o)$	0 lx
$E_{min}/E_{max} (U_d)$	---
Position	0.00 m

Type No.\Make

2		3 x		iGuzzini	
		Order No.		: S658_X799-01	
		Luminaire name		: Allure - 120x150 mm	
		Equipment		: 1 x LED 7.1 W / 1040 lm	
3		4 x			
		Order No.		: S650_X799-01	
		Luminaire name		: Allure - 120x150 mm	
		Equipment		: 1 x LED 7.1 W / 1040 lm	

Object : Scout Hut - 2nd _9th Scout Group - 18 St Catherines Rd
Installation : External Lighting
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1.1 Summary, Exterior 1 - R1

1.1.4 Result overview, Evaluation area 7

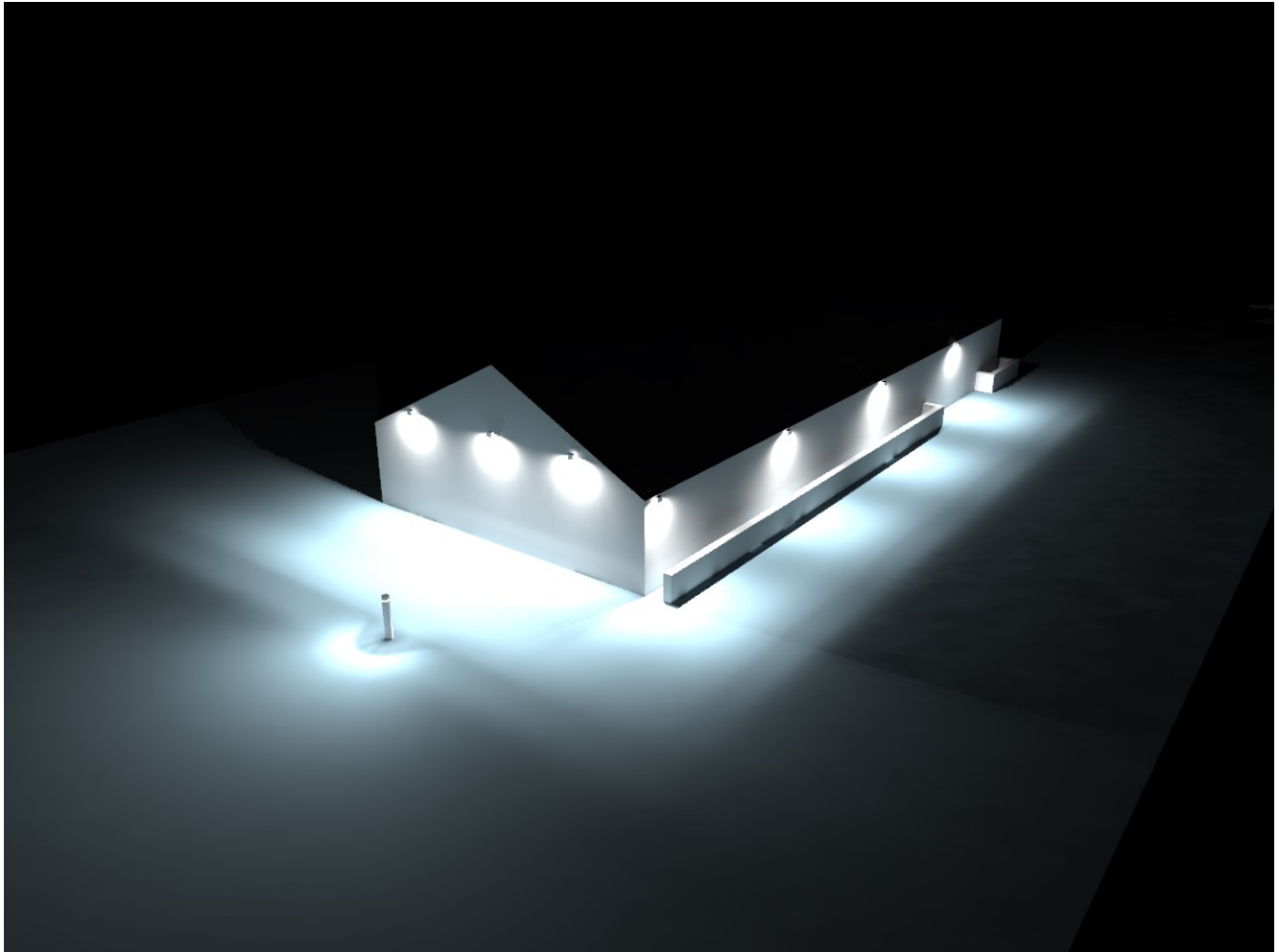
4	1 x	Order No.	: BW79_X023
		Luminaire name	: iWay - round
		Equipment	: 1 x LED 12.4 W / 2000 lm



1 Exterior 1 - R1

1.2 Calculation results, Exterior 1 - R1

1.2.1 3D luminance (raytracing), Variable view



Luminance in the illustration:

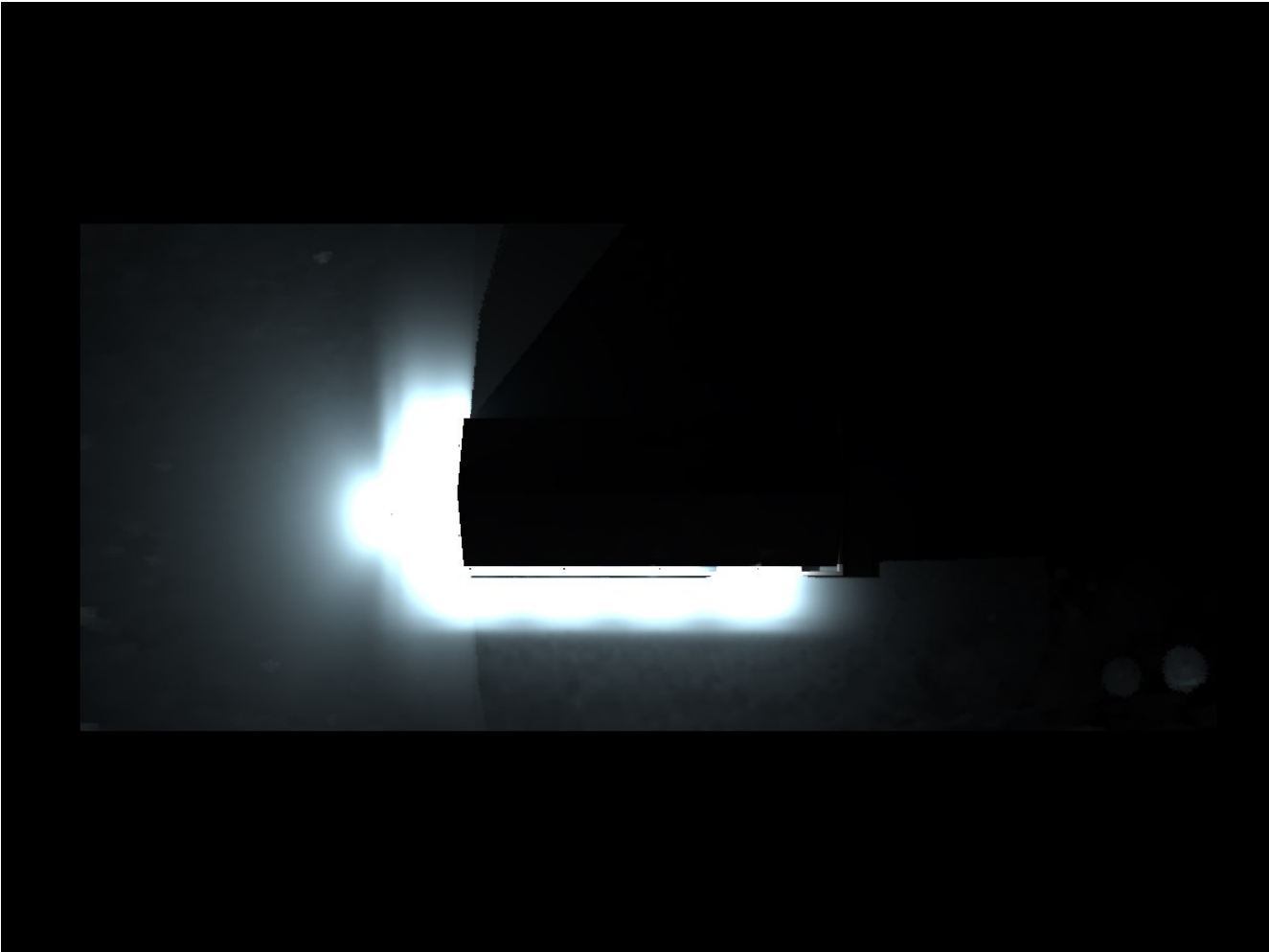
Minimum: : 0 cd/m²

Maximum: : 454 cd/m²

Artificial light calculation : Direct part, with 5 inter-reflections

1.2 Calculation results, Exterior 1 - R1

1.2.2 3D luminance (raytracing), View from above



Luminance in the illustration:

Minimum:

Maximum:

: 0 cd/m²

: 17.9 cd/m²

Artificial light calculation

: Direct part, with 5 inter-reflections