

STAKEHILL INDUSTRIAL ESTATE, MIDDLETON

Installation : VEHICLE STORAGE

Project number : 12909

Customer : RENTRUCK

Processed by : CBG Light Perceptions

Date : 02.09.2025

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

Luminaire data

1.1

DW Windsor, KIRIUM PRO2 64LED C1... (KIRIUM PRO2 64L...)

1.1.1

Data sheet

Manufacturer: DW Windsor

KIRIUM PRO2 64LED 3k C1 550mA UMSUG 42 0090 0000 100

KIRIUM PRO2 64LED C1

Luminaire data

Luminaire efficiency

Luminaire efficacy

Classification

CIE Flux Codes

UGR 4H 8H

Power

Luminous flux

: 99.9849%

: 161.49 lm/W

: A30 ↓100.0% ↑0.0%

: 21 71 99 100 100

: 27.0 / 27.0

: 90 W

: 14533.8 lm

Equipped with

Quantity

Designation

Colour

Luminous flux

: 1

: 64 x 3k LED

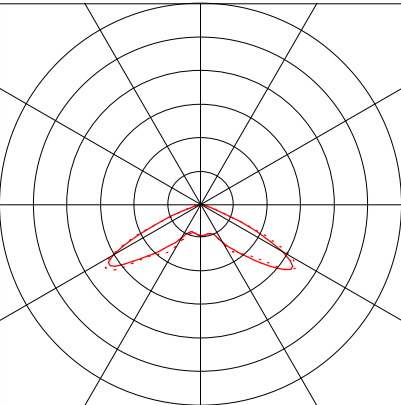
:

: 14536 lm

Dimensions

:

350 mm x 720 mm x 140 mm



1 Luminaire data

1.2 DW Windsor, KIRIUM PRO2 64LED C2... (KIRIUM PRO2 64L...)

1.2.1 Data sheet

Manufacturer: DW Windsor

KIRIUM PRO2 64LED 3k C2 550mA UMSUG 42 0090 0000 100

KIRIUM PRO2 64LED C2

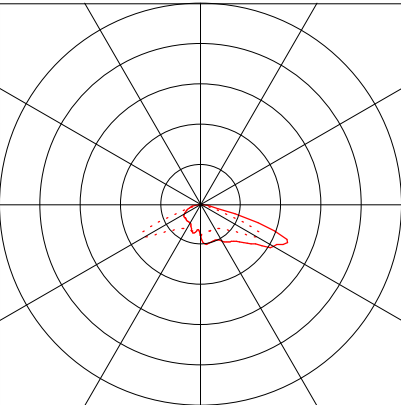
Luminaire data

Luminaire efficiency : 100%
Luminaire efficacy : 154.98 lm/W
Classification : A20 ↓100.0% ↑0.0%
CIE Flux Codes : 25 58 97 100 100
UGR 4H 8H : 33.2 / 27.3
Power : 90 W
Luminous flux : 13948 lm

Equipped with

Quantity : 1
Designation : 64 x 3k LED
Colour :
Luminous flux : 13948 lm

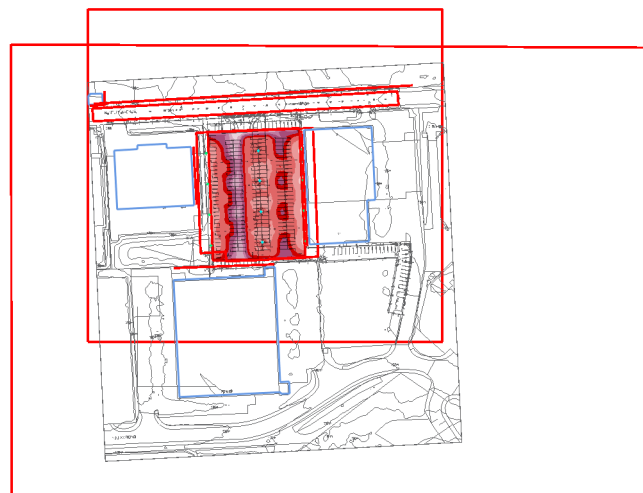
Dimensions : 350 mm x 720 mm x 140 mm



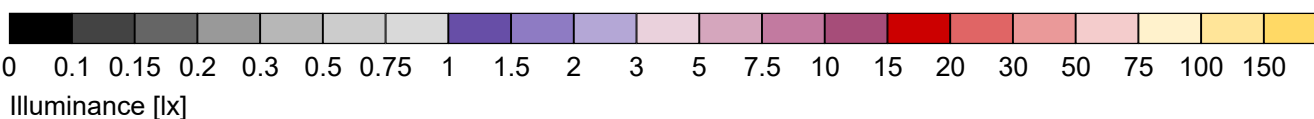
2 Exterior 1 - DW Windsor Proposal

2.1 Summary, Exterior 1 - DW Windsor Proposal

2.1.1 Result overview, Parking



74 124 174 224 274 324 374 424 474 x [m]



General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.10 m
Height (phot centre) [m]:	5.93 m
Maintenance factor	0.80

Total luminous flux	169728 lm
Total power	1080 W
Total power per area (113807.12 m²)	0.01 W/m²

Illuminance

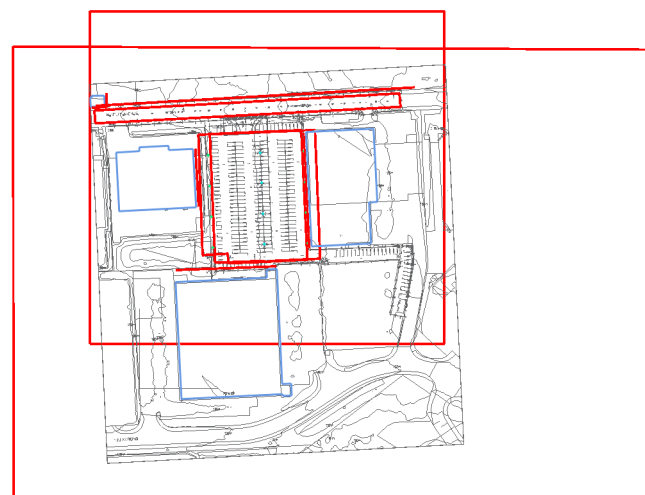
Average illuminance	$\bar{E}_m$	22.6 lx
Minimum illuminance	E_{min}	3.7 lx
Maximum illuminance	E_{max}	49.8 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:6.14 (0.16)
Diversity U_d	E_{min}/E_{max}	1:13.5 (0.07)

Type No. Make

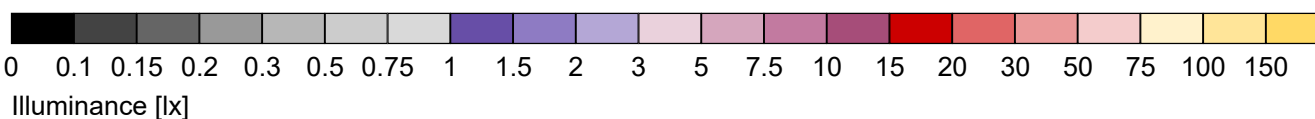
DW Windsor		
2	4 x	Order No. : KIRIUM PRO2 64LED 3k C1 550mA UMSUG 42 0090 0000 100
		Luminaire name : KIRIUM PRO2 64LED C1
		Equipment : 1 x 64 x 3k LED 90 W / 14536 lm
3	8 x	Order No. : KIRIUM PRO2 64LED 3k C2 550mA UMSUG 42 0090 0000 100
		Luminaire name : KIRIUM PRO2 64LED C2
		Equipment : 1 x 64 x 3k LED 90 W / 13948 lm

2.1 Summary, Exterior 1 - DW Windsor Proposal

2.1.2 Result overview, Upward Light



74 124 174 224 274 324 374 424 474 x [m]



General

Calculation algorithm used	Average indirect fraction
Height (phot. centre) [m]:	5.93 m
Maintenance factor	0.80
Total luminous flux	169728 lm
Total power	1080 W
Total power per area (113807.12 m ²)	0.01 W/m ²

Illuminance

Average illuminance	$\bar{E}_m$	3.91 lx
Minimum illuminance	E_{min}	0.96 lx
Maximum illuminance	E_{max}	6.96 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:4.07 (0.25)
Diversity U_d	E_{min}/E_{max}	1:7.24 (0.14)

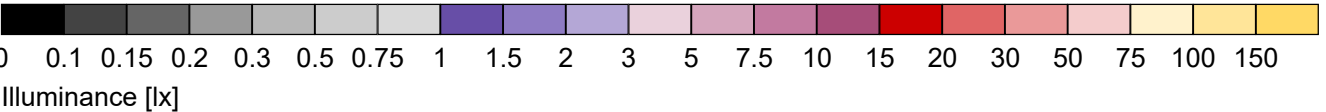
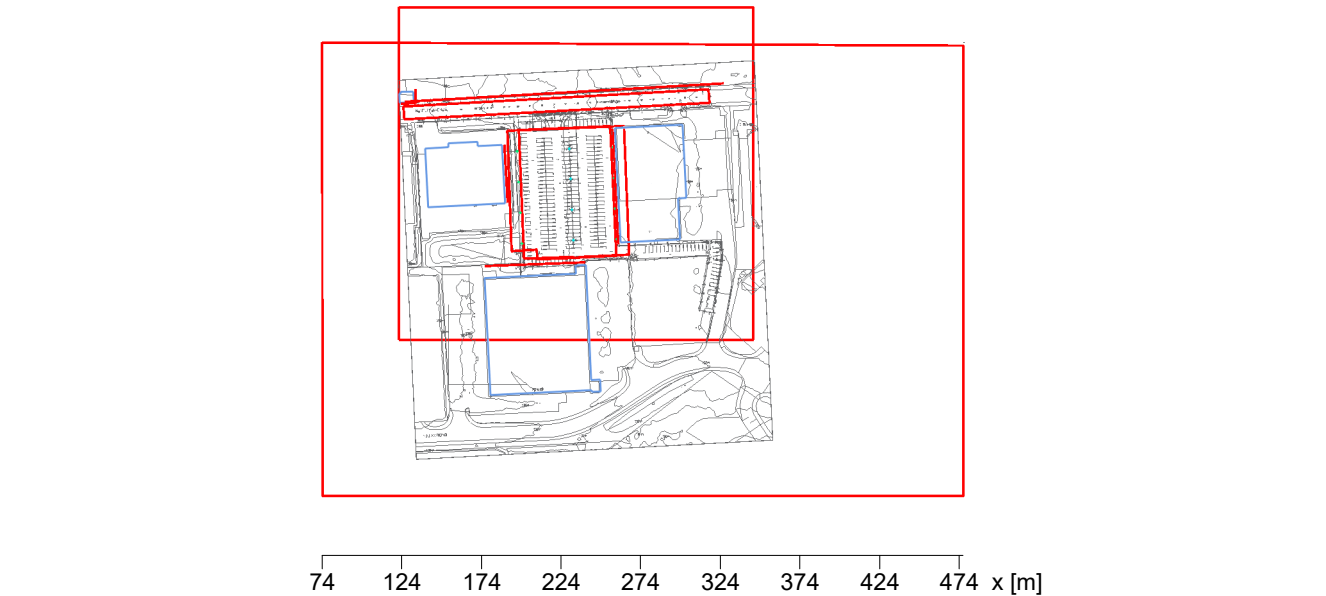
Type No.\Make

DW Windsor

2	4 x	Order No.	: KIRIUM PRO2 64LED 3k C1 550mA UMSUG 42 0090 0000 100
		Luminaire name	: KIRIUM PRO2 64LED C1
		Equipment	: 1 x 64 x 3k LED 90 W / 14536 lm
3	8 x	Order No.	: KIRIUM PRO2 64LED 3k C2 550mA UMSUG 42 0090 0000 100
		Luminaire name	: KIRIUM PRO2 64LED C2
		Equipment	: 1 x 64 x 3k LED 90 W / 13948 lm

2.1 Summary, Exterior 1 - DW Windsor Proposal

2.1.3 Result overview, Near neighbouring residential properties (east façade)



General

Calculation algorithm used	Average indirect fraction
Height (phot centre) [m]:	5.93 m
Maintenance factor	0.80
Total luminous flux	169728 lm
Total power	1080 W
Total power per area (113807.12 m²)	0.01 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	0.05 lx
Minimum illuminance	E_{min}	0.04 lx
Maximum illuminance	E_{max}	0.07 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.29 (0.77)
Diversity U_d	E_{min}/E_{max}	1:1.57 (0.64)

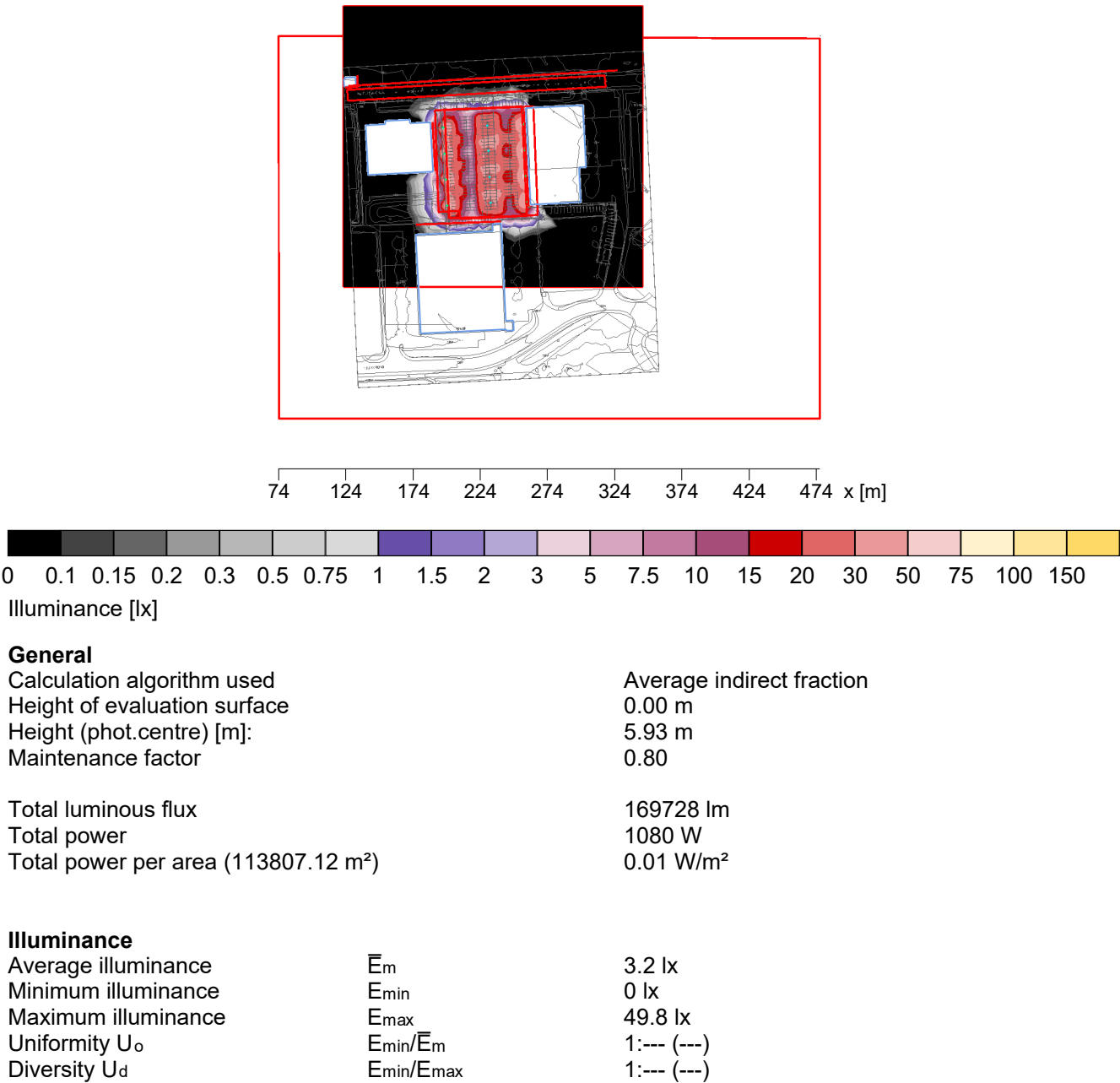
Type No. Make

DW Windsor

2	4 x	Order No.	: KIRIUM PRO2 64LED 3k C1 550mA UMSUG 42 0090 0000 100
		Luminaire name	: KIRIUM PRO2 64LED C1
		Equipment	: 1 x 64 x 3k LED 90 W / 14536 lm
3	8 x	Order No.	: KIRIUM PRO2 64LED 3k C2 550mA UMSUG 42 0090 0000 100
		Luminaire name	: KIRIUM PRO2 64LED C2
		Equipment	: 1 x 64 x 3k LED 90 W / 13948 lm

2.1 Summary, Exterior 1 - DW Windsor Proposal

2.1.4 Result overview, Total area

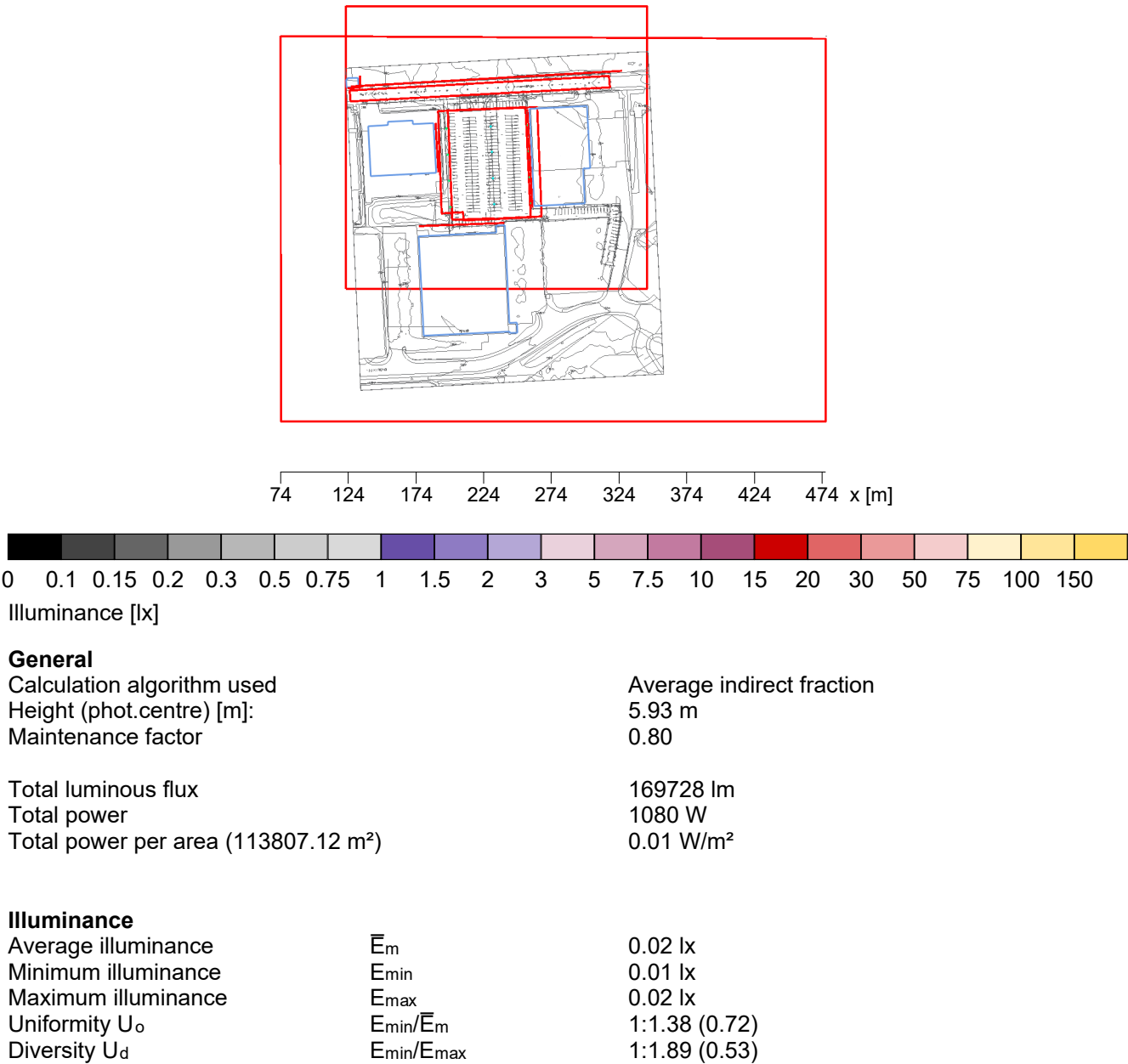


Type No.\Make

DW Windsor		
2	4 x	Order No. : KIRIUM PRO2 64LED 3k C1 550mA UMSUG 42 0090 0000 100
		Luminaire name : KIRIUM PRO2 64LED C1
		Equipment : 1 x 64 x 3k LED 90 W / 14536 lm
3	8 x	Order No. : KIRIUM PRO2 64LED 3k C2 550mA UMSUG 42 0090 0000 100
		Luminaire name : KIRIUM PRO2 64LED C2
		Equipment : 1 x 64 x 3k LED 90 W / 13948 lm

2.1 Summary, Exterior 1 - DW Windsor Proposal

2.1.5 Result overview, Near neighbouring residential properties (south facade)



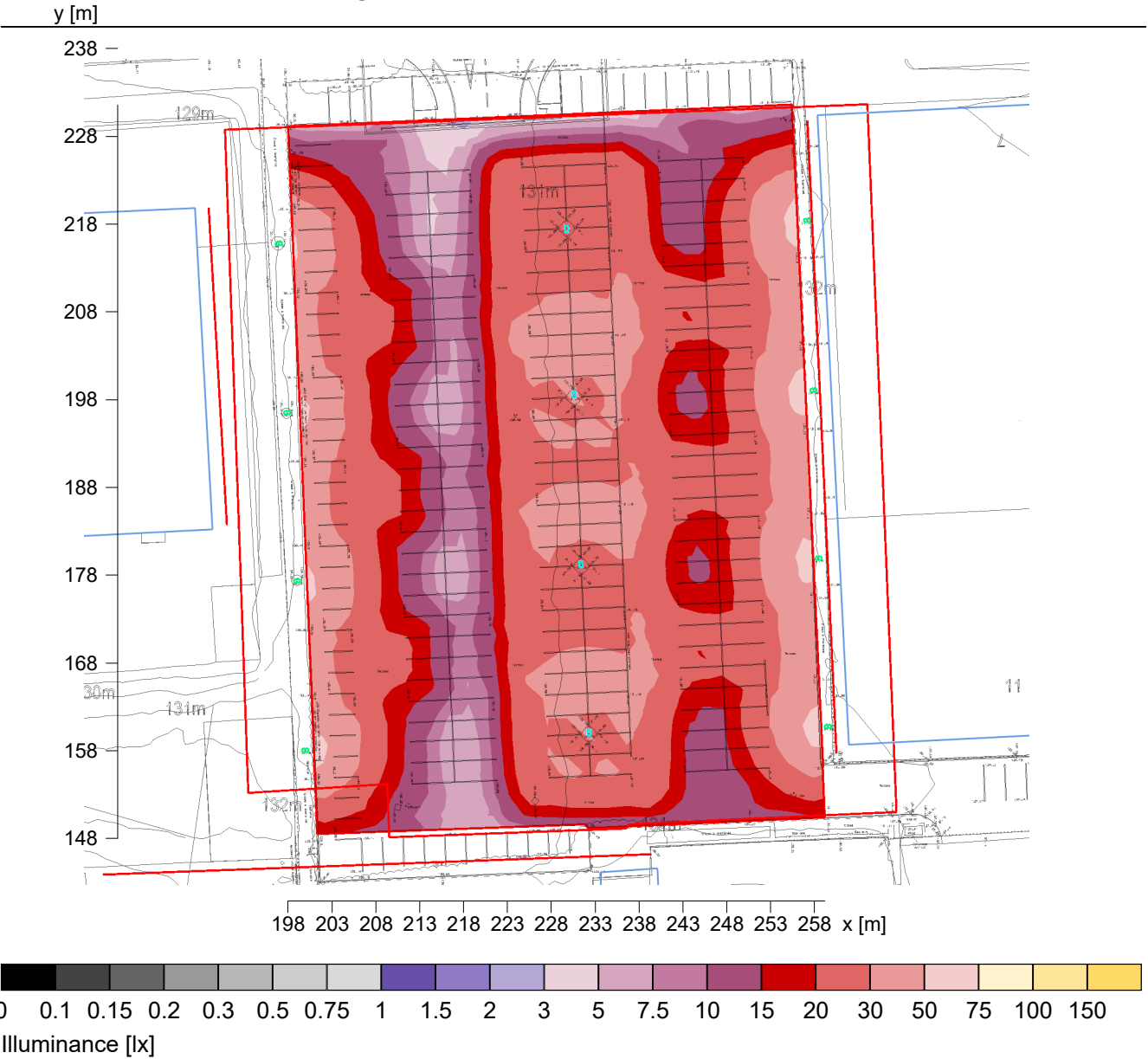
Type No.\Make

DW Windsor		
2	4 x	Order No. : KIRIUM PRO2 64LED 3k C1 550mA UMSUG 42 0090 0000 100
		Luminaire name : KIRIUM PRO2 64LED C1
		Equipment : 1 x 64 x 3k LED 90 W / 14536 lm
3	8 x	Order No. : KIRIUM PRO2 64LED 3k C2 550mA UMSUG 42 0090 0000 100
		Luminaire name : KIRIUM PRO2 64LED C2
		Equipment : 1 x 64 x 3k LED 90 W / 13948 lm

2 Exterior 1 - DW Windsor Proposal

2.2 Calculation results, Exterior 1 - DW Windsor Proposal

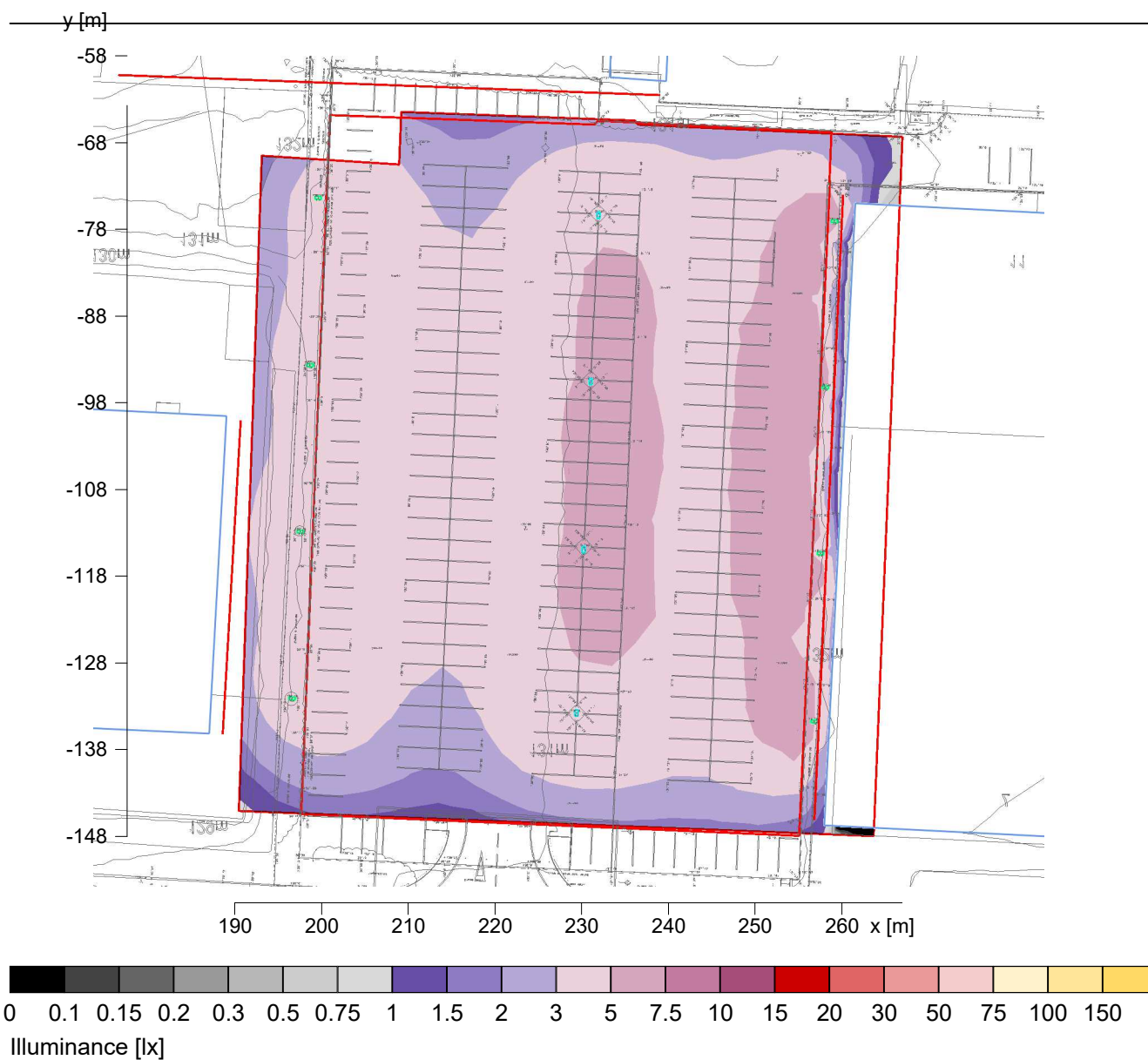
2.2.1 Pseudo colours, Parking (E)



Height reference plane		: 0.10 m
Average illuminance	$\bar{E}_m$	: 22.6 lx
Minimum illuminance	E_{min}	: 3.7 lx
Maximum illuminance	E_{max}	: 49.8 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	: 1 : 6.14 (0.16)

2.2 Calculation results, Exterior 1 - DW Windsor Proposal

2.2.2 Pseudo colours, Upward Light (E)



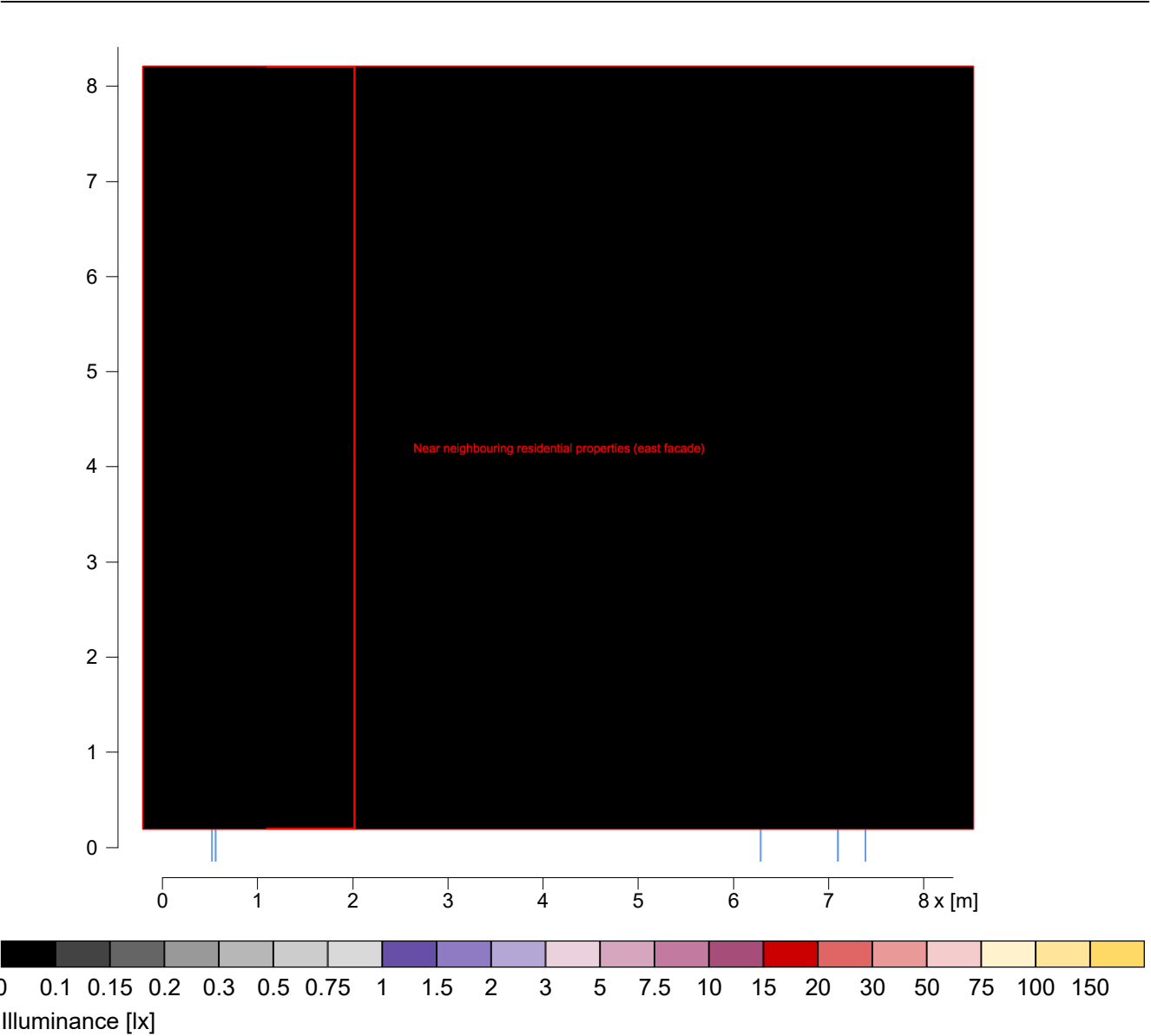
Average illuminance
 Minimum illuminance
 Maximum illuminance
 Uniformity U_0

$\bar{E}_m$: 3.91 lx
 E_{min} : 0.96 lx
 E_{max} : 6.96 lx
 $E_{min}/\bar{E}_m$: 1 : 4.07 (0.25)



2.2 Calculation results, Exterior 1 - DW Windsor Proposal

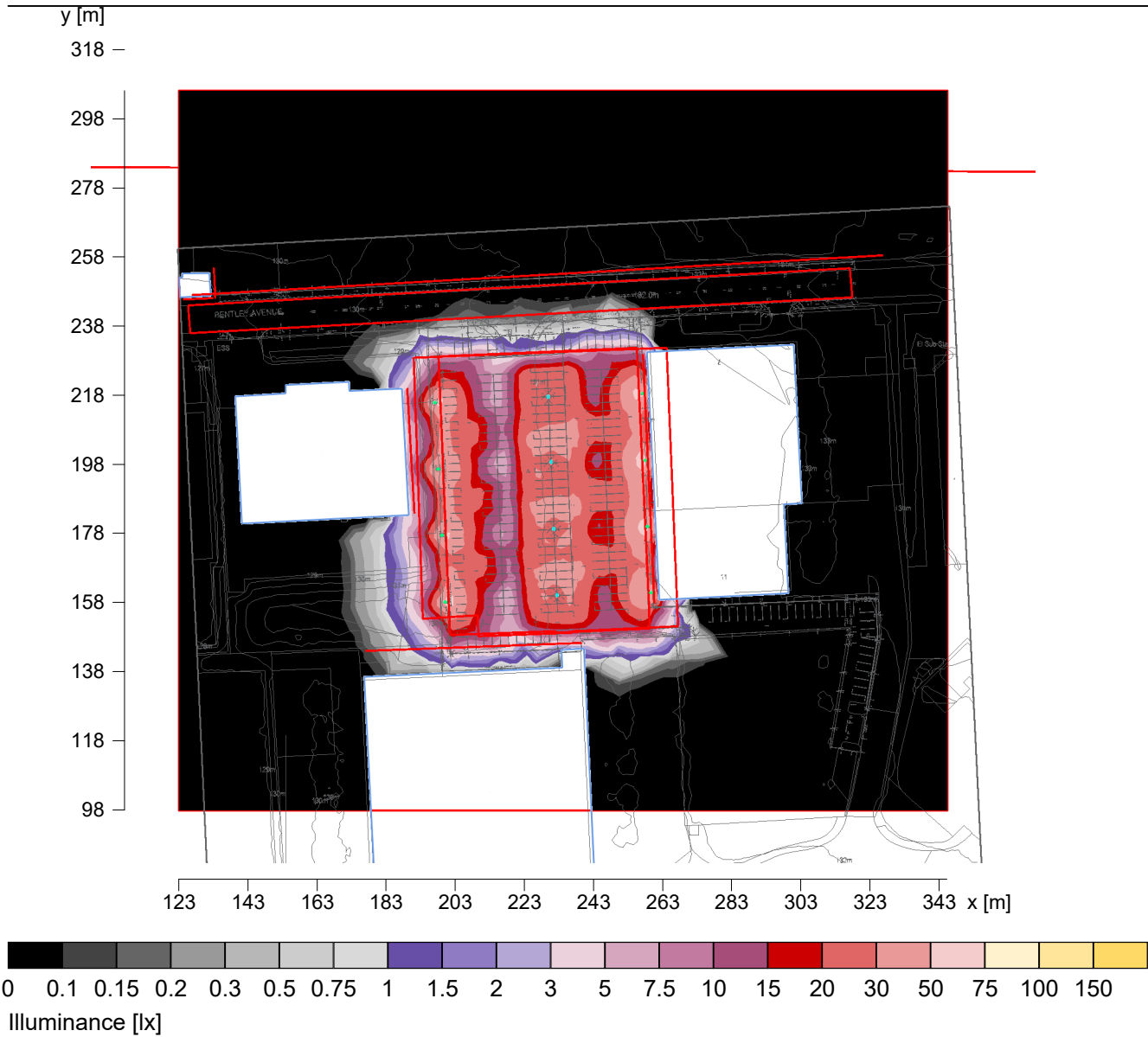
2.2.3 Pseudo colours, Near neighbouring residential properties (east facade) (E) **A N T S**



Average illuminance	$\bar{E}_m$	: 0.05 lx
Minimum illuminance	E_{min}	: 0.04 lx
Maximum illuminance	E_{max}	: 0.07 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	: 1 : 1.29 (0.77)

2.2 Calculation results, Exterior 1 - DW Windsor Proposal

2.2.4 Pseudo colours, Total area (E)

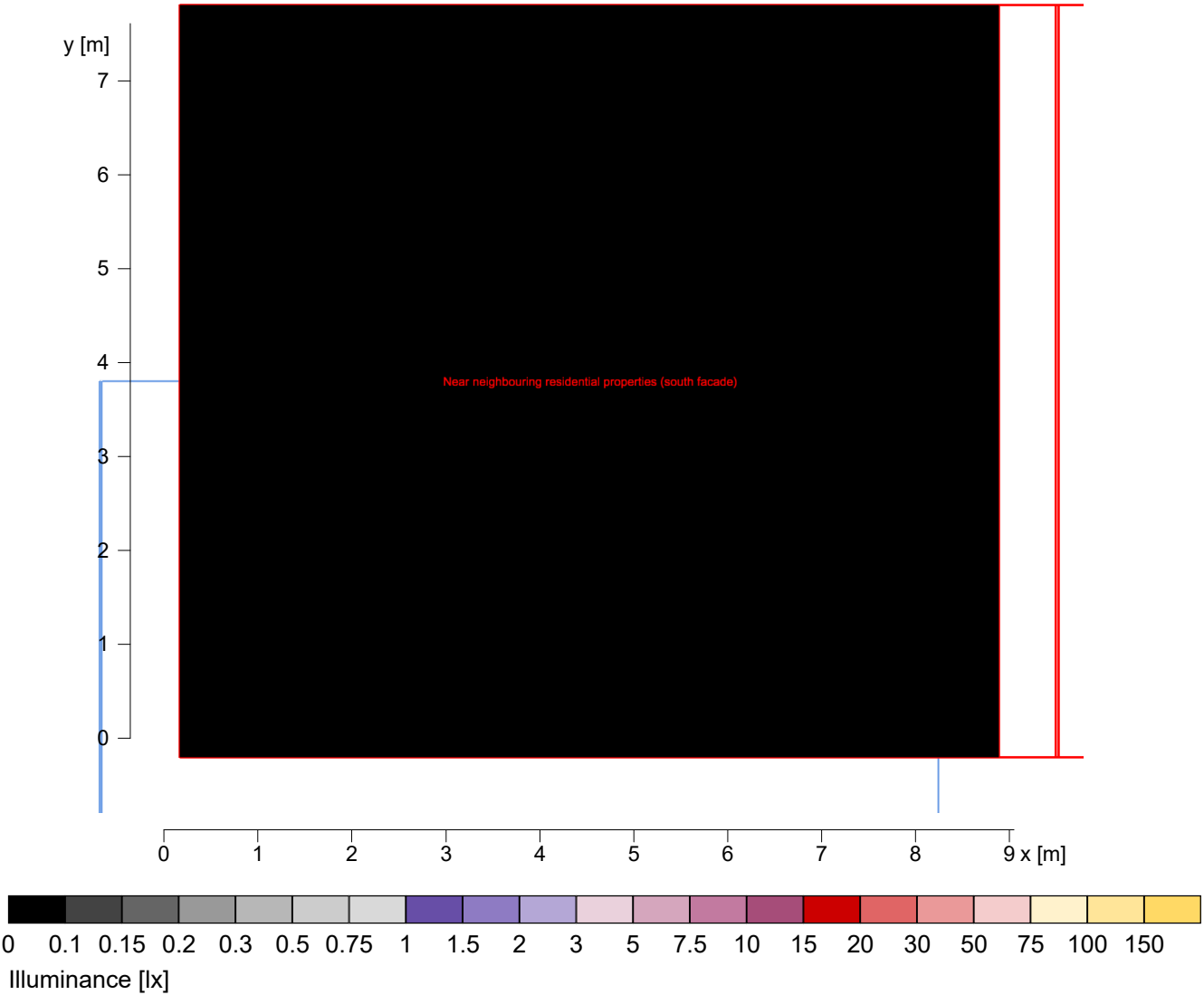


Height reference plane		: 0.00 m
Average illuminance	$\bar{E}_m$	: 3.2 lx
Minimum illuminance	E_{min}	: 0 lx
Maximum illuminance	E_{max}	: 49.8 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	: ---



2.2 Calculation results, Exterior 1 - DW Windsor Proposal

2.2.5 Pseudo colours, Near neighbouring residential properties (south facade) (E) **A N T S**



Average illuminance	$\bar{E}_m$	: 0.02 lx
Minimum illuminance	E_{min}	: 0.01 lx
Maximum illuminance	E_{max}	: 0.02 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	: 1 : 1.38 (0.72)