

# Shopping Mall Exterior

Installation : Raylux Urban

Project number : Sample Application

Customer : Raytec

Processed by : Raytec White-Light Design

Date : 05/2014

## Project description:

This is a sample showing a Shopping Mall Exterior application using Raylux Urban range.

## Products used:

Raylux Urban UBF 24 - UBF24 (40W)

RAYLUX Urban series of White-Light LED illuminators are perfect for commercial applications as well as lighting for surveillance cameras.

The following values are based on exact calculations on calibrated lamps, luminaires and their arrangement. In practice, gradual divergences can occur.

Guarantee claims for luminaire data are excluded.

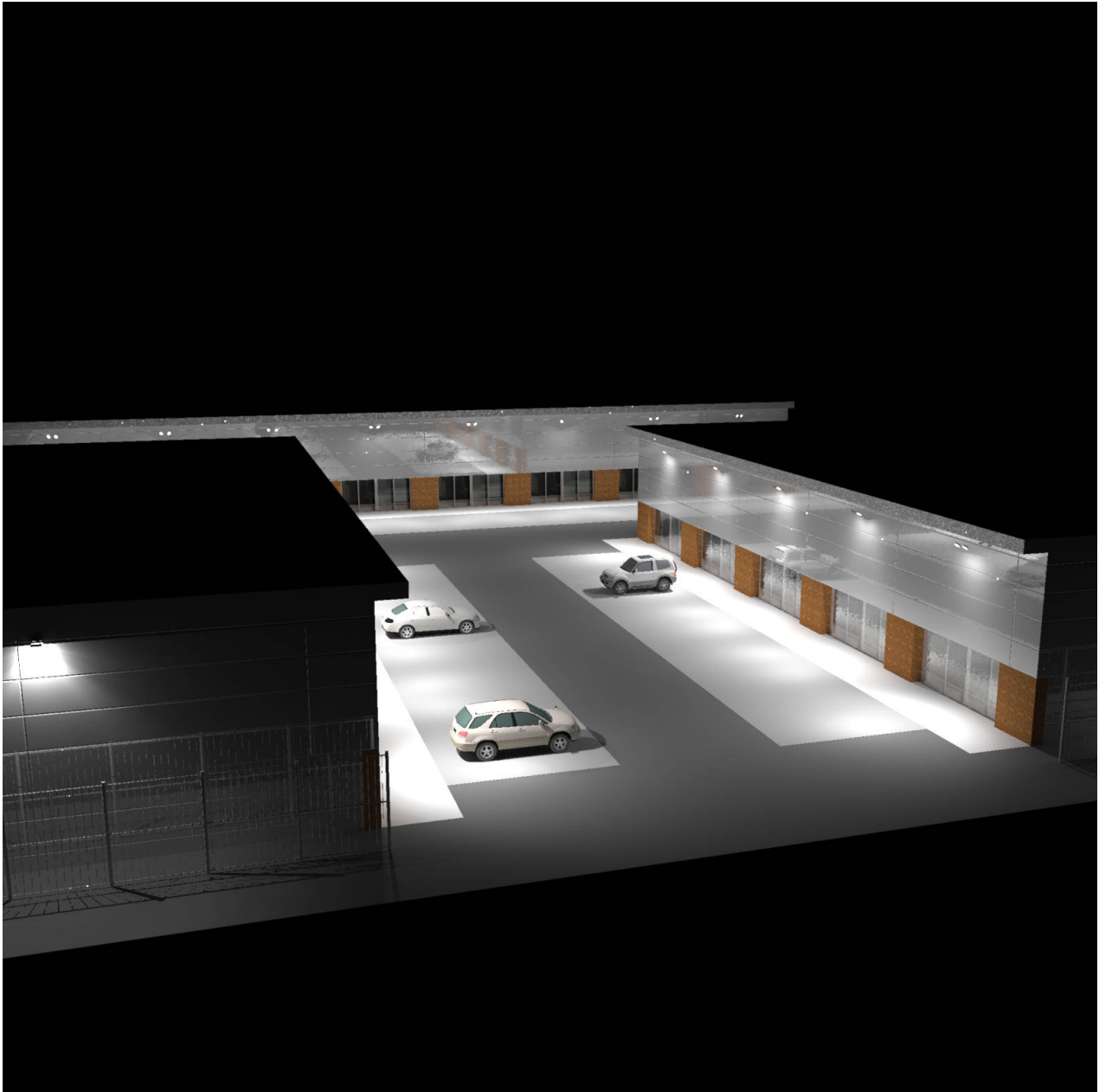
Relux and the luminaire manufacturers accept no liability for consequential damage and damage which is occasioned to the user or to third parties.

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## Shopping Mall Exterior

### Calculation results, Shopping Mall Exterior

#### 3D luminance (raytracing), Variable view



Luminance in the illustration:

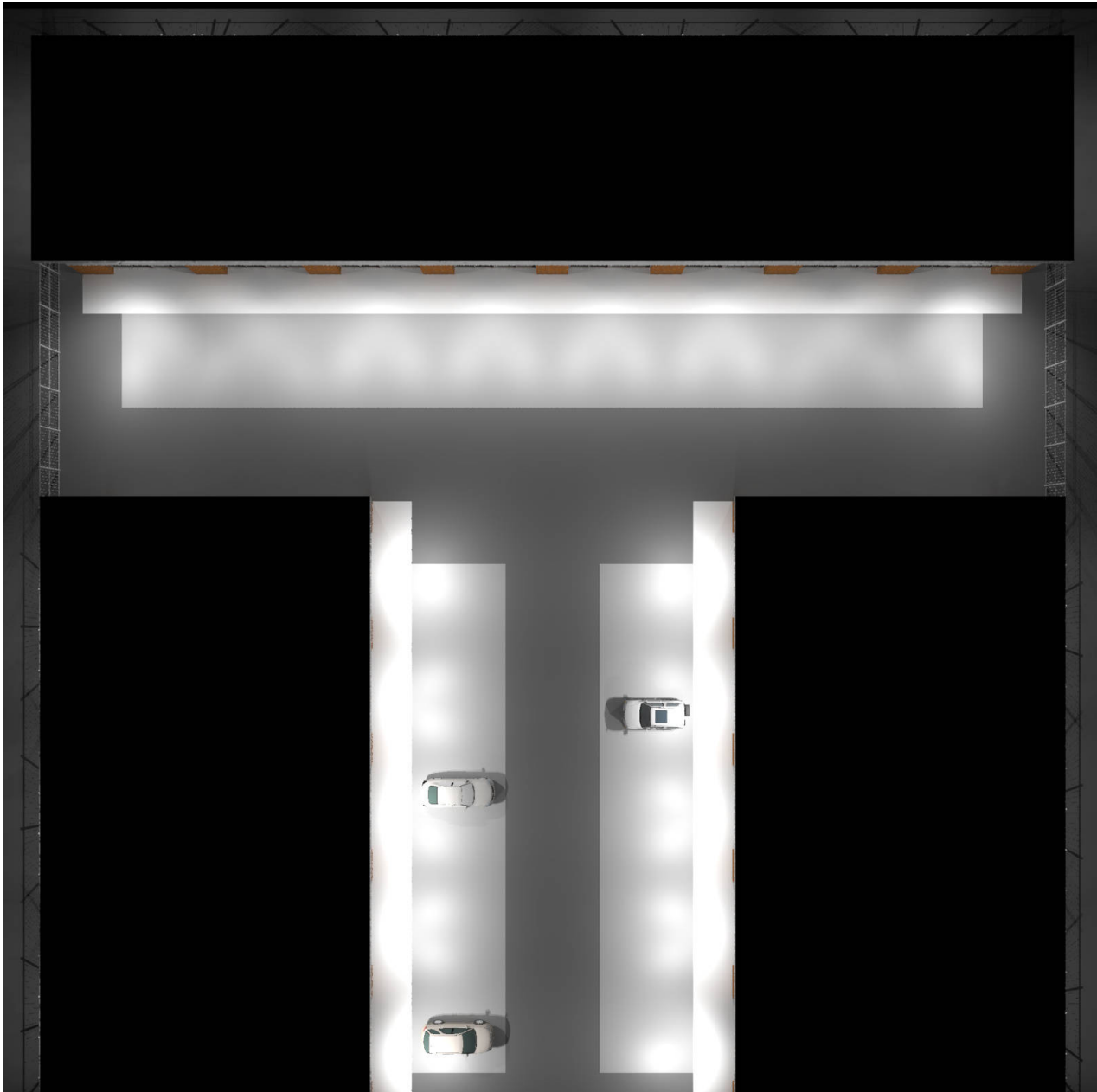
Minimum: : 0 cd/m<sup>2</sup>

Maximum: : 415 cd/m<sup>2</sup>

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

## Calculation results, Shopping Mall Exterior

### 3D luminance (raytracing), View from above



Luminance in the illustration:

Minimum: : 0 cd/m<sup>2</sup>

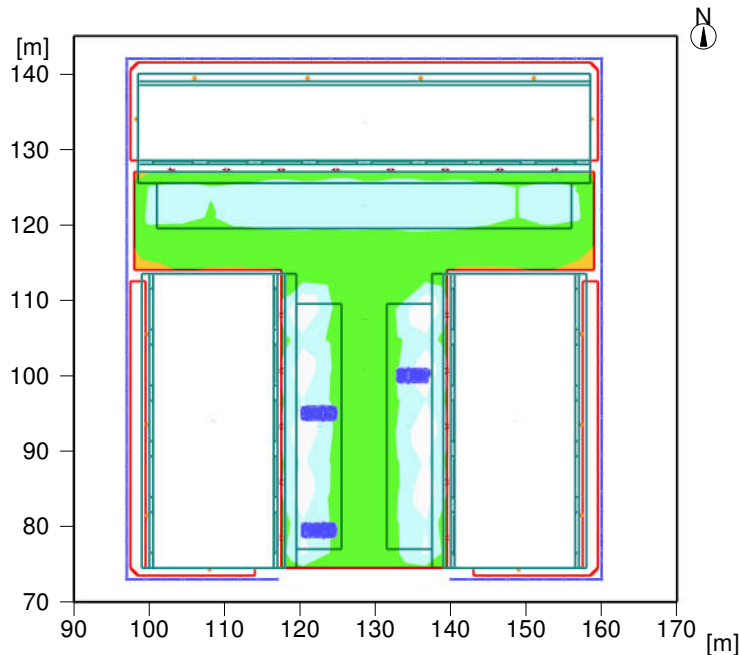
Maximum: : 1.71 cd/m<sup>2</sup>

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

## Shopping Mall Exterior

### Summary, Shopping Mall Exterior

#### Result overview, Centre Area



#### General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.10 m
Maintenance factor	0.85

Total luminous flux of all lamps	100300 lm
Total power	1946.6 W
Total power per area (6000.00 m <sup>2</sup> )	0.32 W/m <sup>2</sup>

#### Illuminance

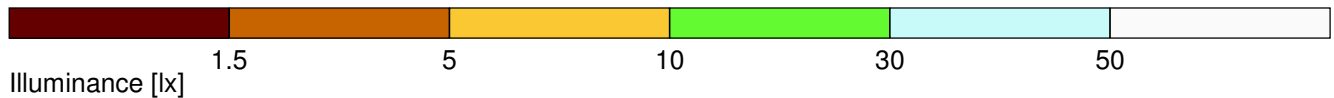
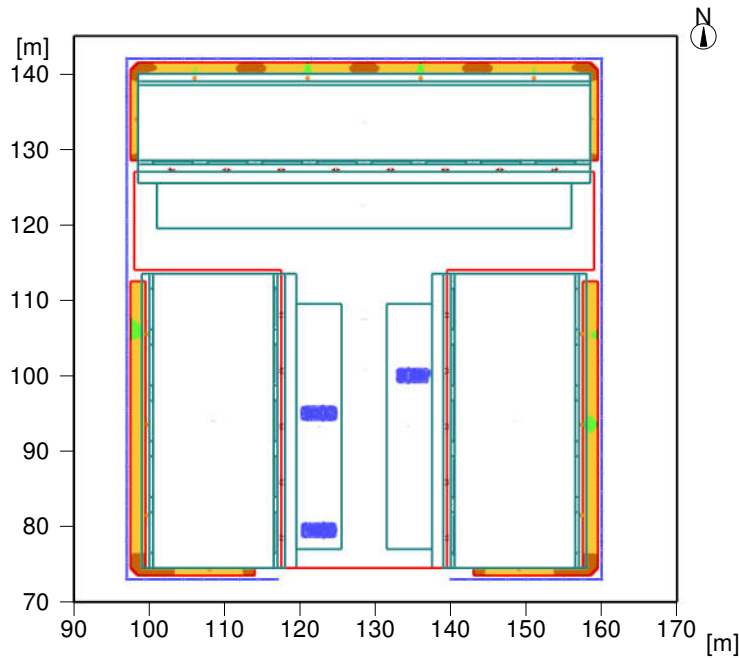
Average illuminance	Eav	32.9 lx
Minimum illuminance	Emin	13.1 lx
Maximum illuminance	Emax	75.9 lx
Uniformity U <sub>o</sub>	Emin/Em	1:2.51 (0.4)
Diversity U <sub>d</sub>	Emin/Emax	1:5.8 (0.17)

#### Type No.\Make

- |  |    |  |  |
|--|----|--|--|
| 2  | 14 |  | <b>RAYTEC</b>  |
|  |    |  | Order No. : UBF-24-120H-80V                          |
|  |    |  | Luminaire name : RAYLUX UBF24 120x80 deg             |
| Equipment : 1 x Main Voltage 24x LED Panel / 2078 lm |    |  |  |
| 5  | 36 |  | Order No. : UBA-48-50                                |
|  |    |  | Luminaire name : RAYLUX UBA48 50 deg                 |
|  |    |  | Equipment : 1 x Main Voltage 24x LED Panel / 1978 lm |

## Summary, Shopping Mall Exterior

### Result overview, Perimeter Area



#### General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.10 m
Maintenance factor	0.85

Total luminous flux of all lamps	100300 lm
Total power	1946.6 W
Total power per area (6000.00 m <sup>2</sup> )	0.32 W/m <sup>2</sup>

#### Illuminance

Average illuminance	Eav	7 lx
Minimum illuminance	Emin	2.6 lx
Maximum illuminance	Emax	10.4 lx
Uniformity U <sub>o</sub>	Emin/Em	1:2.69 (0.37)
Diversity U <sub>d</sub>	Emin/Emax	1:3.96 (0.25)

#### Type No.\Make

- |  |    |  |  |
|--|----|--|--|
| 2  | 14 |  | <b>RAYTEC</b>  |
|  |    |  | Order No. : UBF-24-120H-80V                          |
|  |    |  | Luminaire name : RAYLUX UBF24 120x80 deg             |
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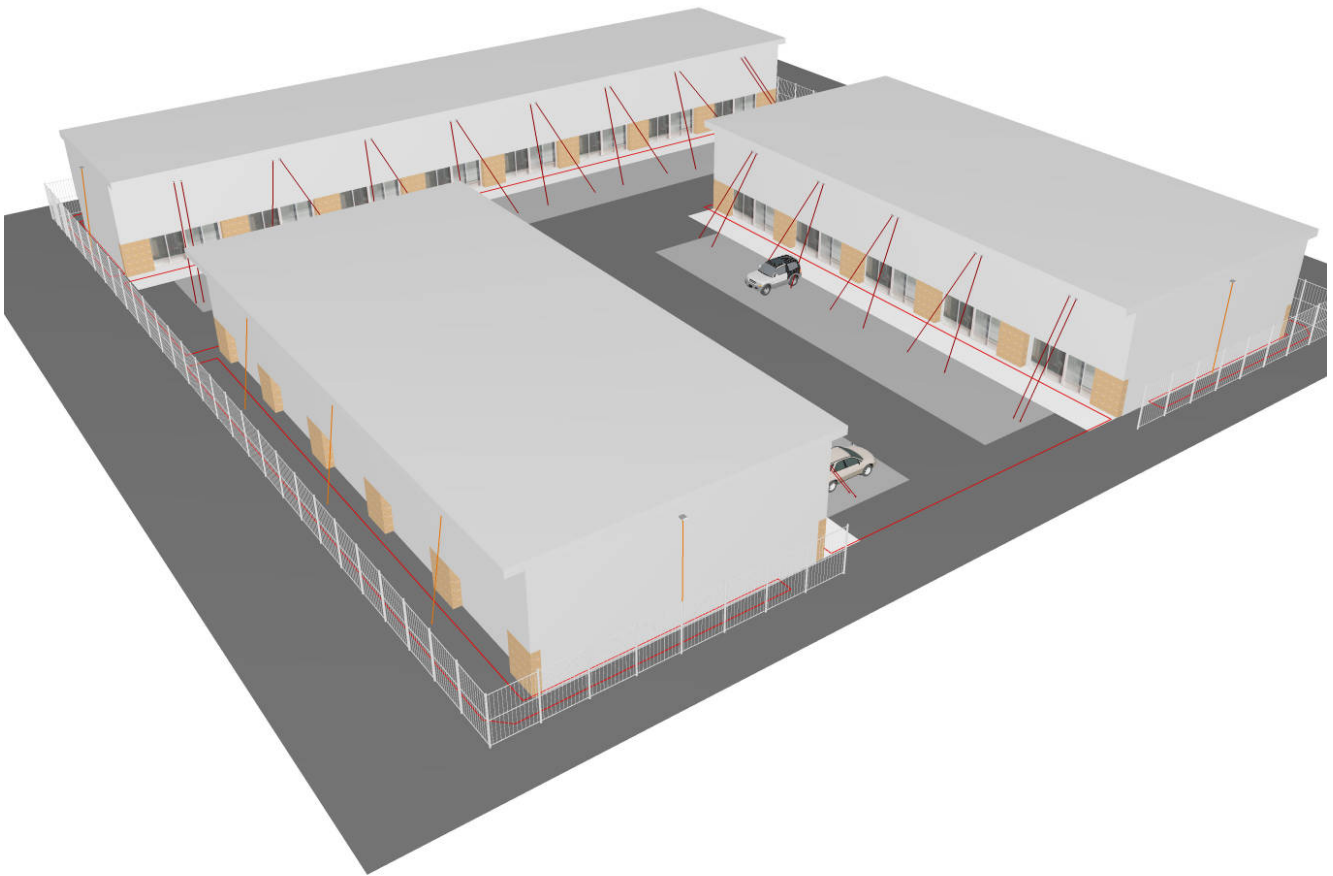


## Shopping Mall Exterior

### Description, Shopping Mall Exterior

#### 3D view, Overview

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## Shopping Mall Exterior

### Calculation results, Shopping Mall Exterior

#### 3D pseudo colours, Overview (E)

