

**ESTENSIONE RETE DELLA PUBBLICA
ILLUMINAZIONE TRATTO DI VIA FIRENZE
E REALIZZAZIONE NUOVI IMPIANTI,
TRATTI EX STRADA STATALE 66, IN
LOCALITA' S.ANTONIO E OLMI**



**CALCOLO ILLUMINOTECNICO
TRATTI DI VIA EX STRADA STATALE 66**

Quarrata, Aprile 2021



Il progettista
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Comune di Quarrata - Via Statale (Barba - Olmi)

Standard CEN 13201 : 2015

Designer Studio Tecnico

Date 20/02/2021

Application Ulysse 3.4.8

Description Verifica Illuminotecnica Via Statale

Categoria M2 Strada Urbana di Scorrimento

Teceo 2 72led 700mA 5103 Palo h.f.t.mt.10,00 senza braccio

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1. Fixtures

1.1. TECEO GEN2 2 72 LEDs 700mA WW730 730 Piano, Vetro extra chiaro, Liscio 5103 467002

Type TECEO GEN2 2

Reflector 5103

Source 72 LEDs 700mA WW730 730

Protector Piano, Vetro extra chiaro, Liscio

Source flux 22,557 klm

G* Unclassified

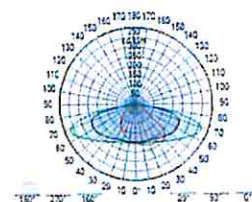
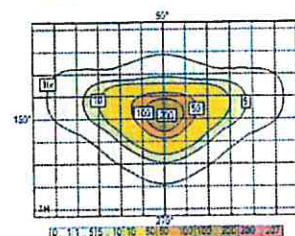
Luminaire wattage 151,0 W

MF 0,80

Matrix 467002

Luminaire flux 18,468 klm

Efficacy 122 lm/W

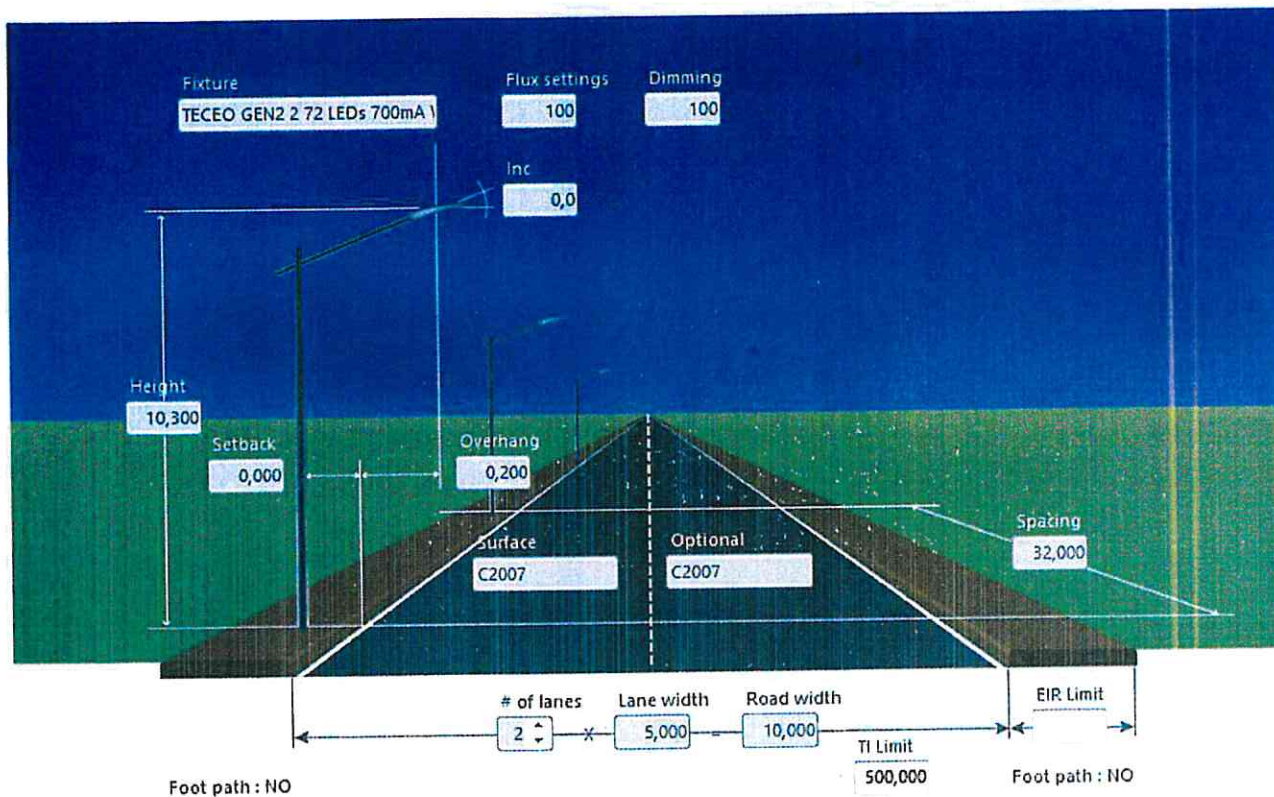


3. Standard

3.1. Standard summary

Calculations according to CEN 13201 : 2015

Selected lighting class Road : M2 - LU : Ave = 1,50 cd/m² Uo = 40 % UI = 70 % UoW = 15 % TI : 10 % EIR : 0,35



3.2. Results

Power per km 4,706 kW

Road (LU)

Luminance

Ave 1,52 cd/m ²	✓	1,50 cd/m ²
Min 0,81 cd/m ²	N/A	
Uo 52 %	✓	40,00 %
UoW 52 %	✓	15,00 %
UI 1 89 %	✓	70,00 %
UI 2 92 %	✓	70,00 %

Values

EIR 0,51	✓	0,35
TI 10	✓	10

4. Default

4.1. Matrix description

Ph. color	Description	Current [mA]	Source flux [klm]	Luminair e flux [klm]	Power [W]	Efficacy [lm/W]	MF	Height [m]	Fixture
	TECEO GEN2 2 72 LEDs 700mA WW730 730 Piano, Vetro extra chiaro, Liscio 5103 467002	700	22,557	18,468	150,6	123	0,800	6 x 10,30	

4.2. Luminaire positions

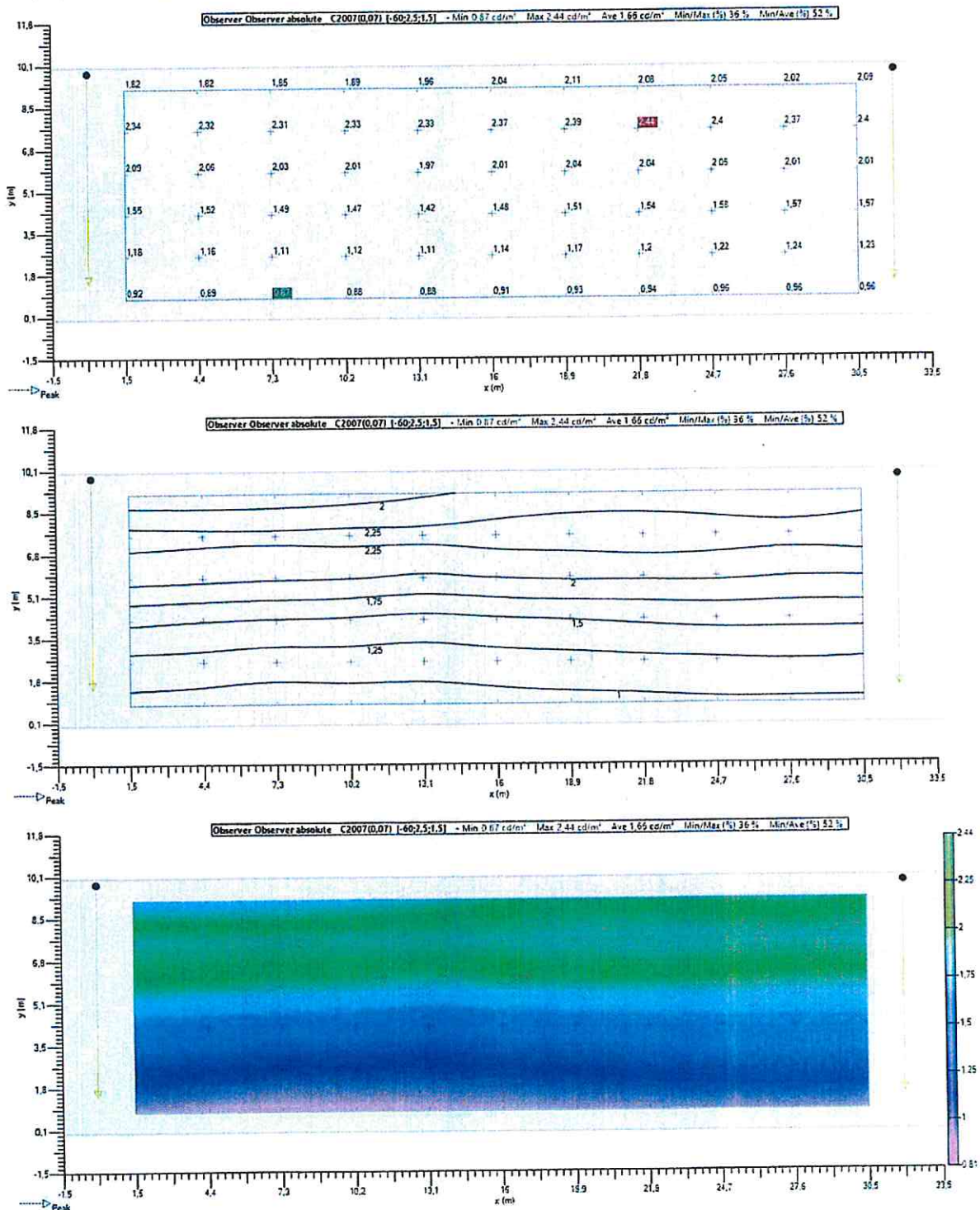
	Color	N°	Position			Luminaire							Target		
			X [m]	Y [m]	Z [m]	Name	Current [mA]	Az [°]	Incl [°]	Rot [°]	Flux [klm]	MF	X [m]	Y [m]	Z [m]
☒		1	-32,00	9,80	10,30	TECEO GEN2 2 72 LEDs 700mA WW730 730 Piano, Vetro extra chiaro, Liscio 5103 467002	700	180,0	0,0	0,0	22,557	0,800	-32,00	9,80	0,00
☒		2	0,00	9,80	10,30	TECEO GEN2 2 72 LEDs 700mA WW730 730 Piano, Vetro extra chiaro, Liscio 5103 467002	700	180,0	0,0	0,0	22,557	0,800	0,00	9,80	0,00
☒		3	32,00	9,80	10,30	TECEO GEN2 2 72 LEDs 700mA WW730 730 Piano, Vetro extra chiaro, Liscio 5103 467002	700	180,0	0,0	0,0	22,557	0,800	32,00	9,80	0,00
☒		4	64,00	9,80	10,30	TECEO GEN2 2 72 LEDs 700mA WW730 730 Piano, Vetro extra chiaro, Liscio 5103 467002	700	180,0	0,0	0,0	22,557	0,800	64,00	9,80	0,00
☒		5	96,00	9,80	10,30	TECEO GEN2 2 72 LEDs 700mA WW730 730 Piano, Vetro extra chiaro, Liscio 5103 467002	700	180,0	0,0	0,0	22,557	0,800	96,00	9,80	0,00
☒		6	128,00	9,80	10,30	TECEO GEN2 2 72 LEDs 700mA WW730 730 Piano, Vetro extra chiaro, Liscio 5103 467002	700	180,0	0,0	0,0	22,557	0,800	128,00	9,80	0,00

4.3. Luminaire groups

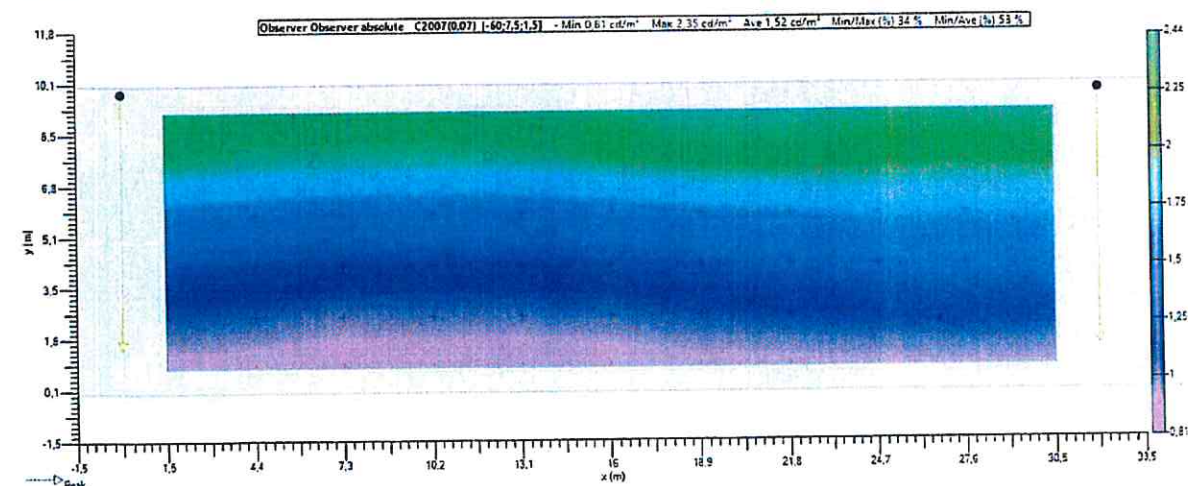
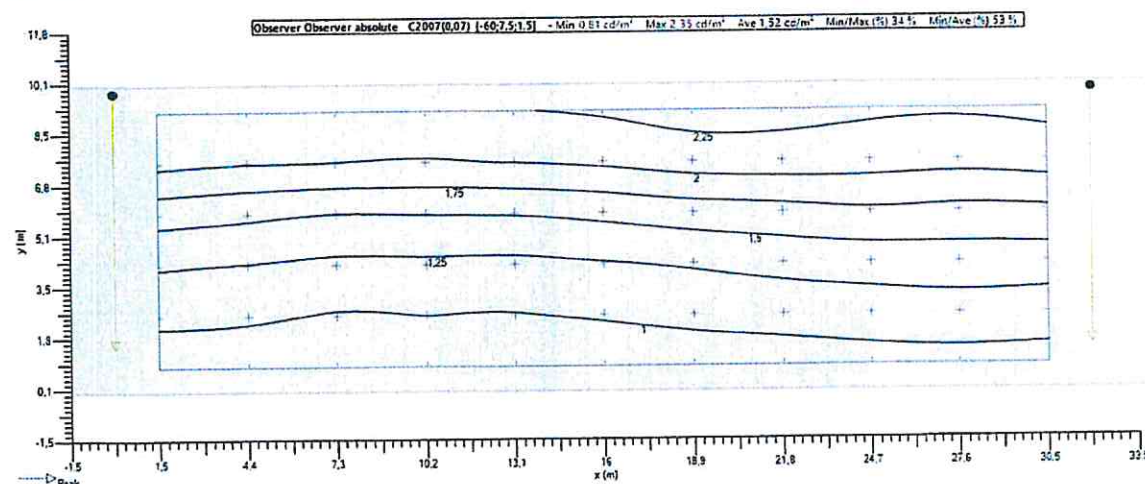
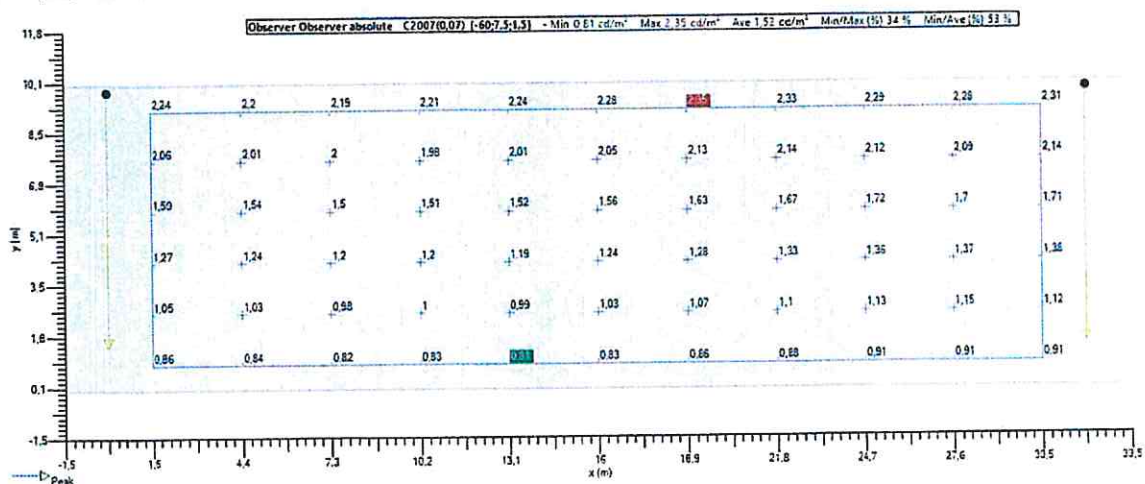
Linear																
	Color	N°	Position			Luminaire					Dimension			Rotation		
			X [m]	Y [m]	Z [m]	Name	Az [°]	Incl [°]	Rot [°]	Dim [%]	Count	Spacing [m]	Size [m]	X [°]	Y [°]	Z [°]
☒		1	-32,00	9,80	10,30	Left	180,0	0,0	0,0	100	6	32,00	160,00	0,0	0,0	0,0

4.4. Luminance - Road (LU) - C2007

Road (LU) - Absolute 1

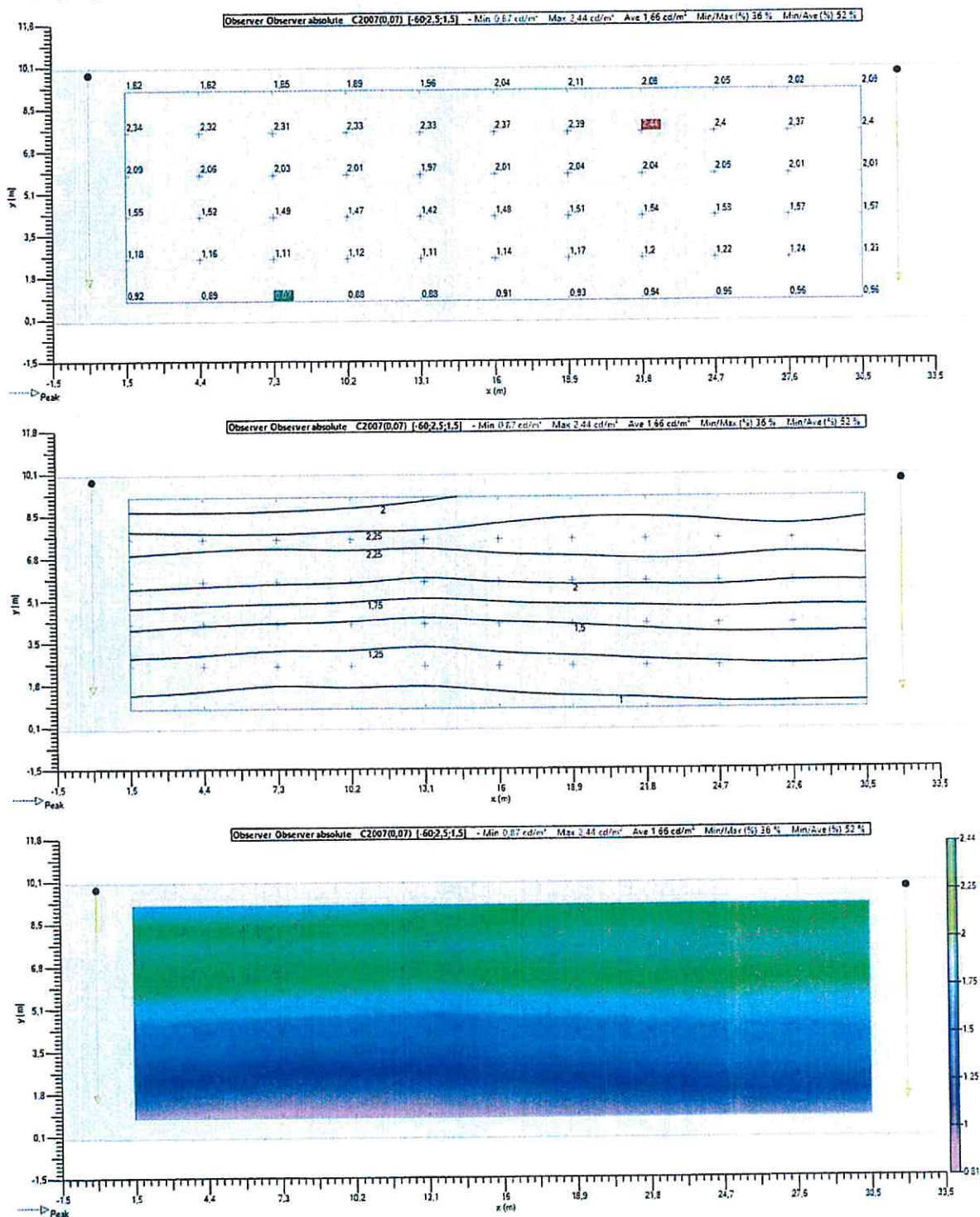


Road (LU) - Absolute 2

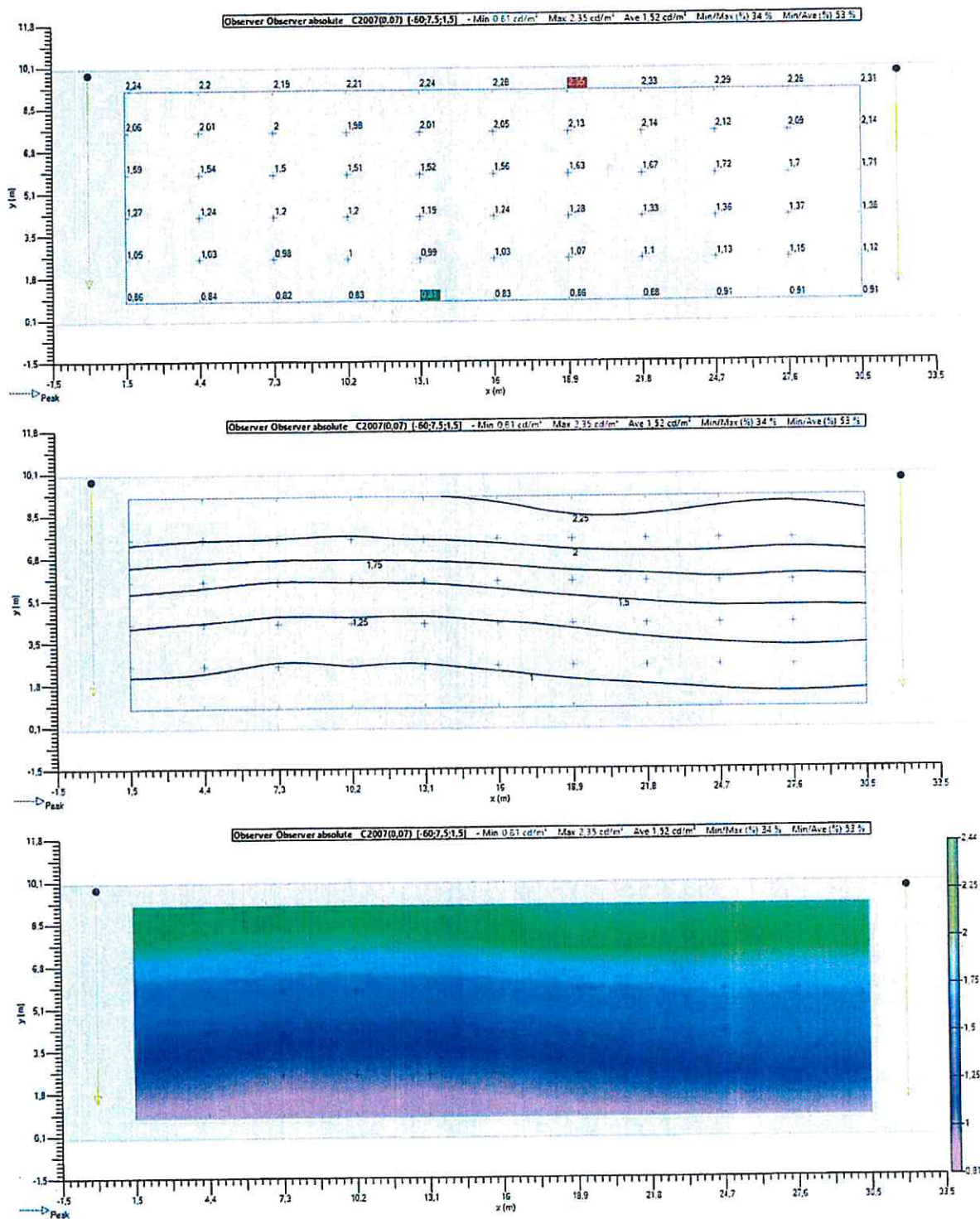


4.5. Luminance - Road (LU) - C2007

Road (LU) - Optional - Absolute 1

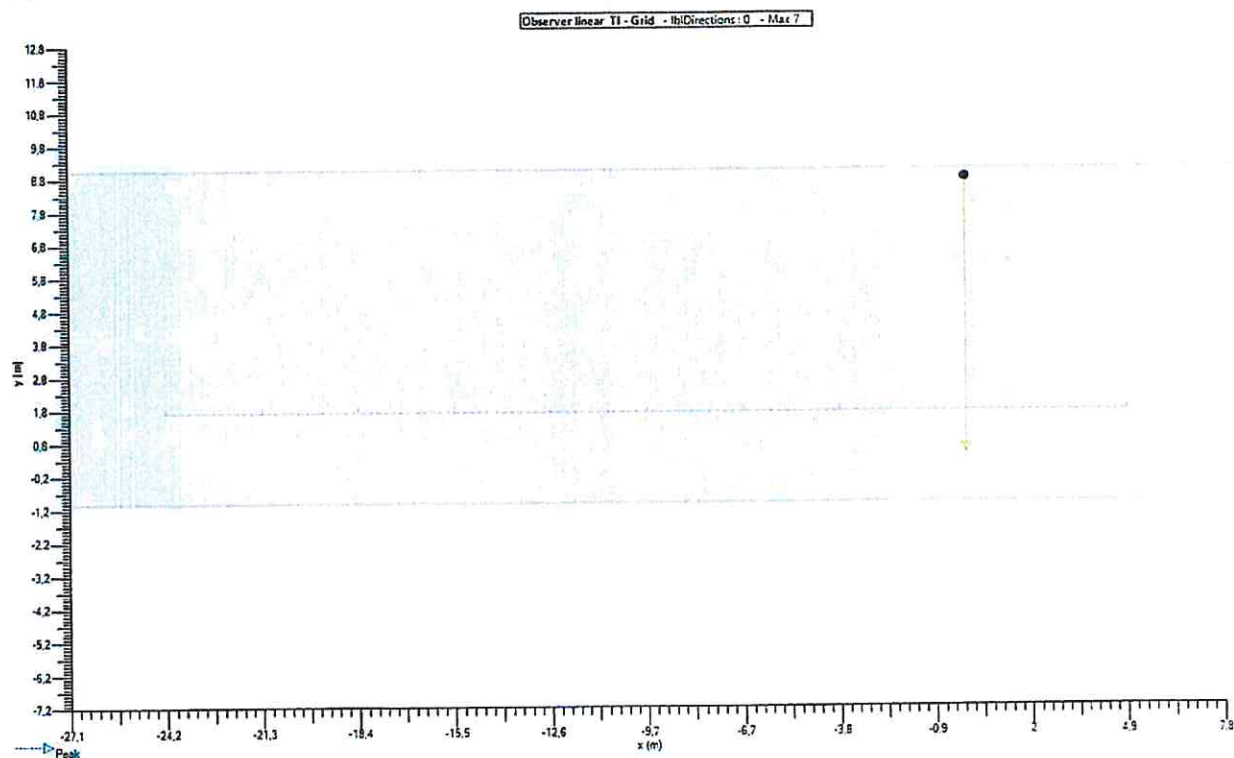


Road (LU) - Optional - Absolute 2

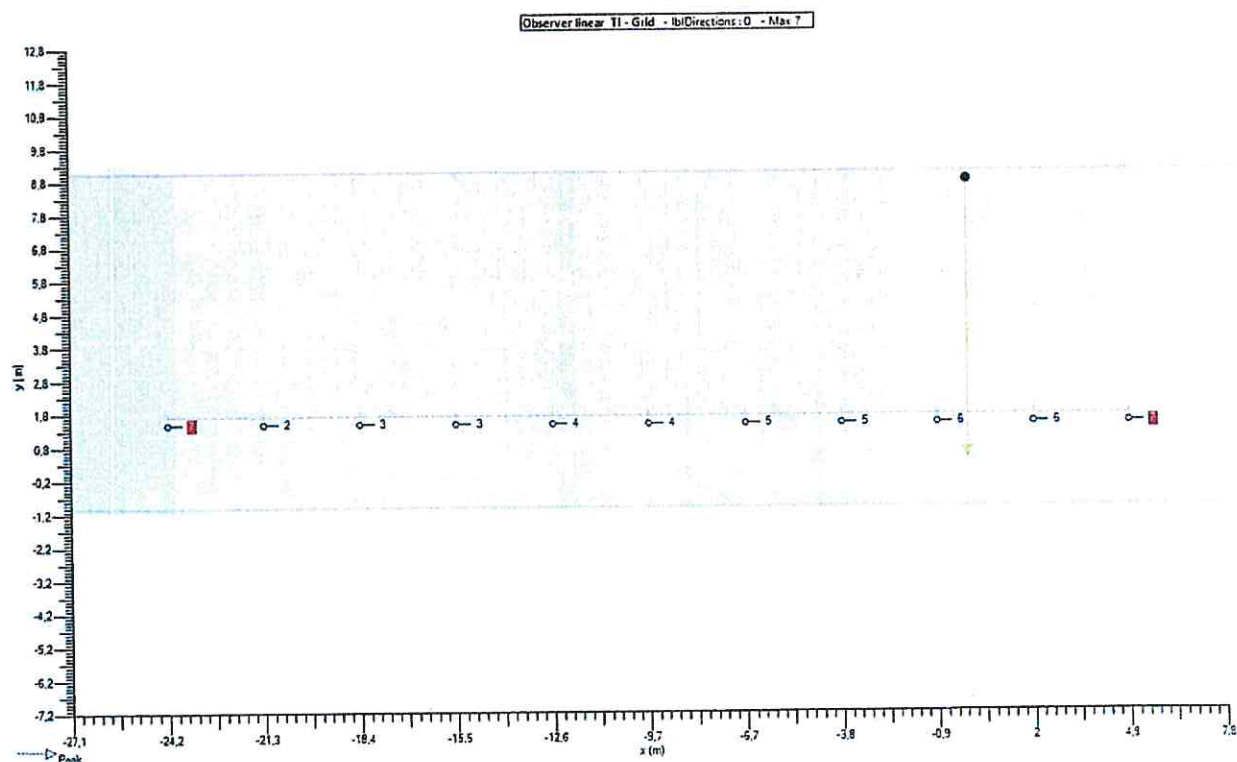


4.6. Road (T1 1) - T1 - Grid

Implantation

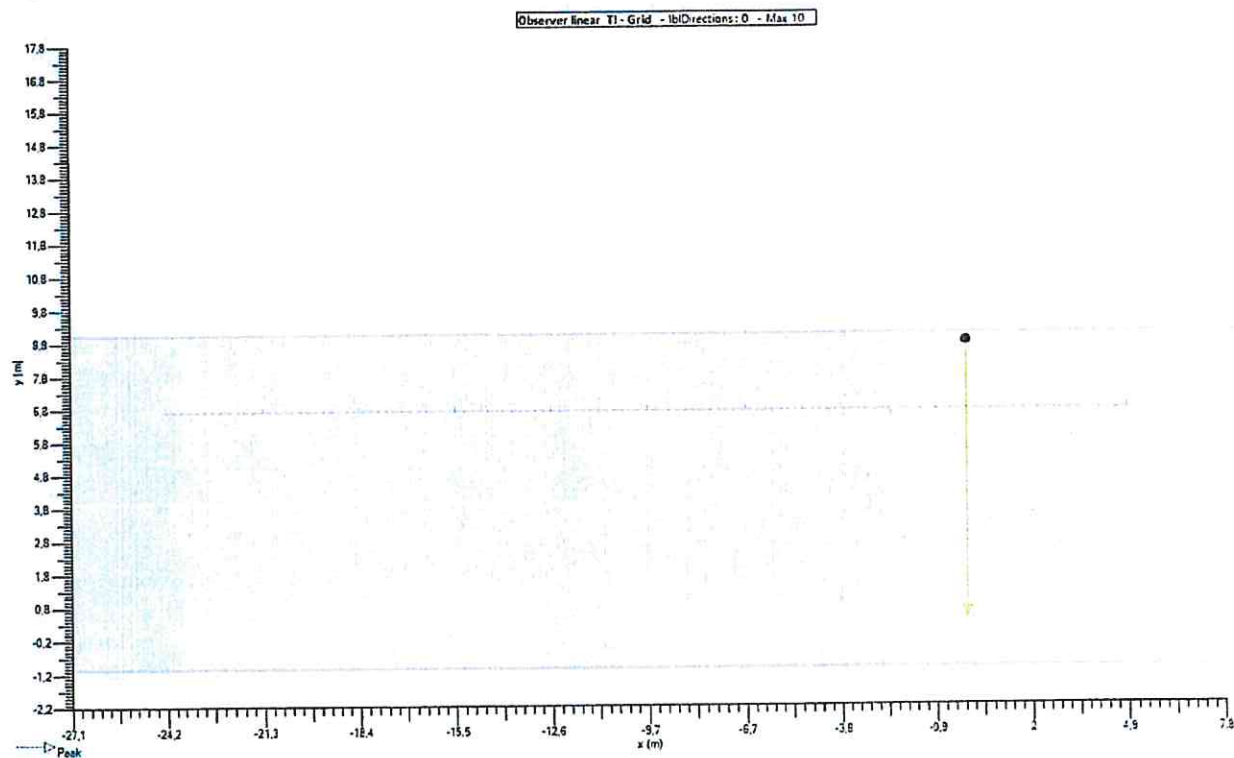


Values

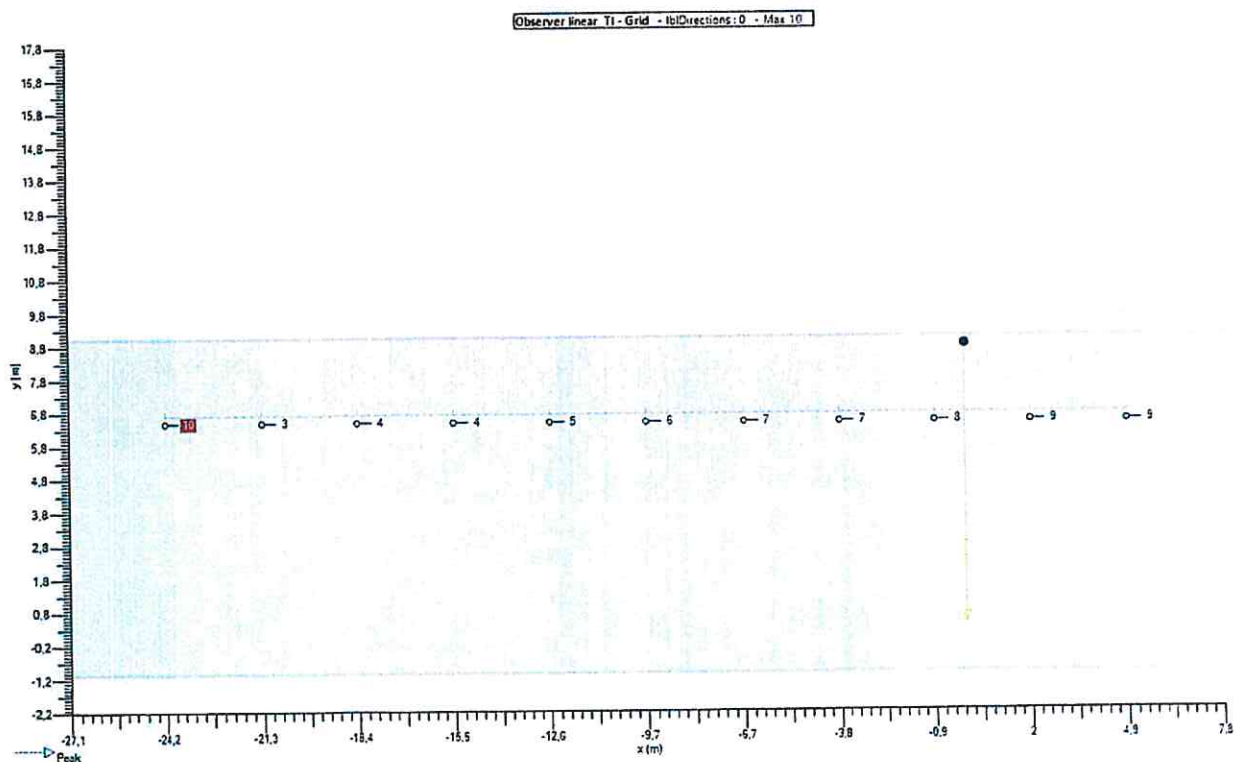


4.7. Road (TI 2) - TI - Grid

Implantation



Values



5. Grids

5.1. Road (LU)

General		Geometry			
Type	Grid rectangular XY	Origin	X 1,45 m	Y 0,83 m	Z 0,00 m
Enabled	☒	Rotation	X 0,0 °	Y 0,0 °	Z 0,0 °
Colour		Dimension	Count X 11	Count Y 6	
			Spacing X 2,91 m	Spacing Y 1,67 m	
			Size X 29,09 m	Size Y 8,33 m	

6. Observer

6.1. Road (TI 1)

General

Type Observer linear

En ☒Color 

Directions 0,0

Calculation TI - Grid

Grid Road (LU)

Geometry

Origin X -24,20 m Y 2,50 m Z 1,50 m

Rotation X 0,0 ° Y 0,0 ° Z 0,0 °

Dimension Count 11 Spacing 2,91 m Size 29,09 m

6.2. Road (TI 2)

General

Type Observer linear

En ☒Color 

Directions 0,0

Calculation TI - Grid

Grid Road (LU)

Geometry

Origin X -24,20 m Y 7,50 m Z 1,50 m

Rotation X 0,0 ° Y 0,0 ° Z 0,0 °

Dimension Count 11 Spacing 2,91 m Size 29,09 m