

**Lavori di manutenzione straordinaria per la riqualificazione
dell'impianto di pubblica illuminazione di via Montalbano, a
Quarrata.**



CALCOLO ILLUMINOTECNICO

**TRATTO COMPRESO DALL'INTERSEZIONE DI VIA MONTALBANO CON VIA
EUROPA E VIA TORINO E PIAZZA RISORGIMENTO**

Quarrata, 12 Novembre 2018

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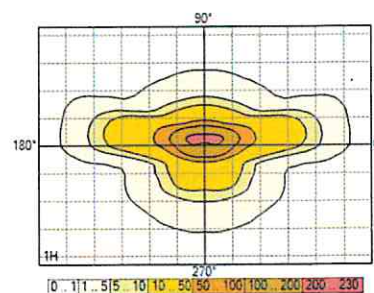
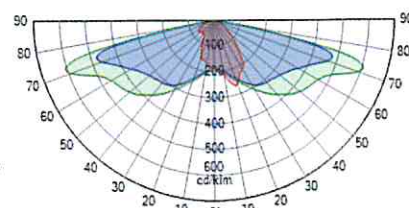
1. Apparecchi

1.1. TECEO 1 5246 32 XP-G3 500mA WW 49.5W 407292 Flat glass - 230V 25d 31-08-18A EF

Descrizione TECEO 1 5246 - 32 XP-G3 500mA WW 230V 00-22-365Flat glass 407292

Tipologia	TECEO 1 5246 - 32 XP-G3 500mA
Riflettore	
Sorgente	32 XP-G3 500mA 230V
Protettore	
Impostazioni	
Flusso di	6,6 klm
Classe - G	2

Potenza	49,0 W
Potenza	0,0 W
Efficienza	109 lm/W
Flusso apparecchio	5,355 klm
FM	1,00
Matrice	TECEO 1 5246

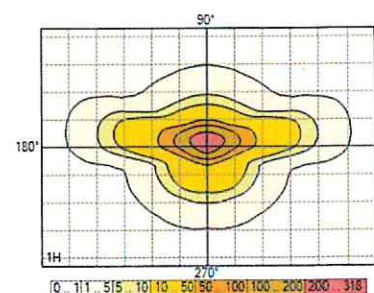
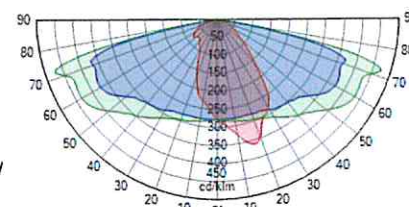


1.2. TECEO S 5245 16 XP-G3 350mA WW 18.3W 409022 [Flat glass] [fra P B] Embellishment 230V 25d 31-0:

Descrizione TECEO S 5245 Embellishment 16 XP-G3 350mA WW 230V 00-36-646[Flat glass].

Tipologia	TECEO S 5245 Embellishment 16
Riflettore	
Sorgente	16 XP-G3 350mA 230V
Protettore	
Impostazioni	
Flusso di	2,4 klm
Classe - G	4

Potenza	18,0 W
Potenza	0,0 W
Efficienza	111 lm/W
Flusso apparecchio	1,991 klm
FM	0,90
Matrice	TECEO S 5245

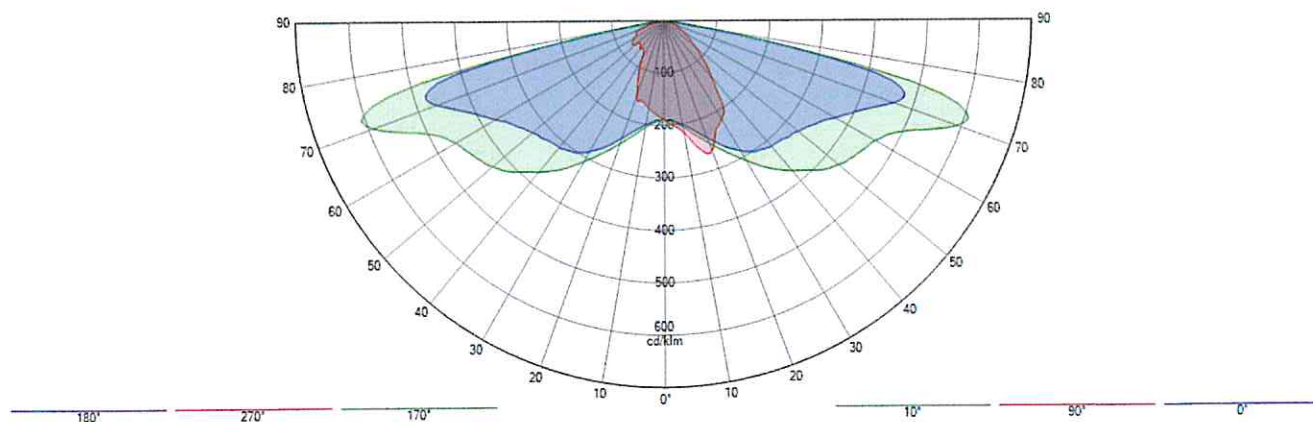


2. Documentazione Fotometrica

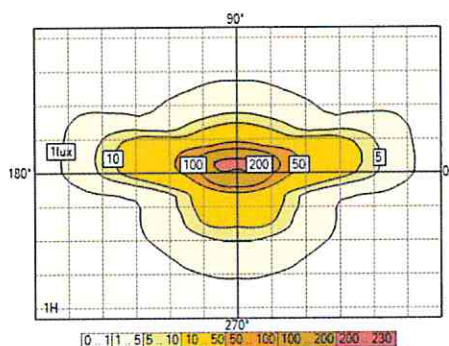
2.1. TECEO 1 5246 32 XP-G3 500mA WW 49.5W 407292 Flat glass - 230V 25d 31-08-18A EF

TECEO 1 5246 32 TECEO 1 5246 - 32 XP-G3 500mA WW 230V 00-22-365Flat glass 407292

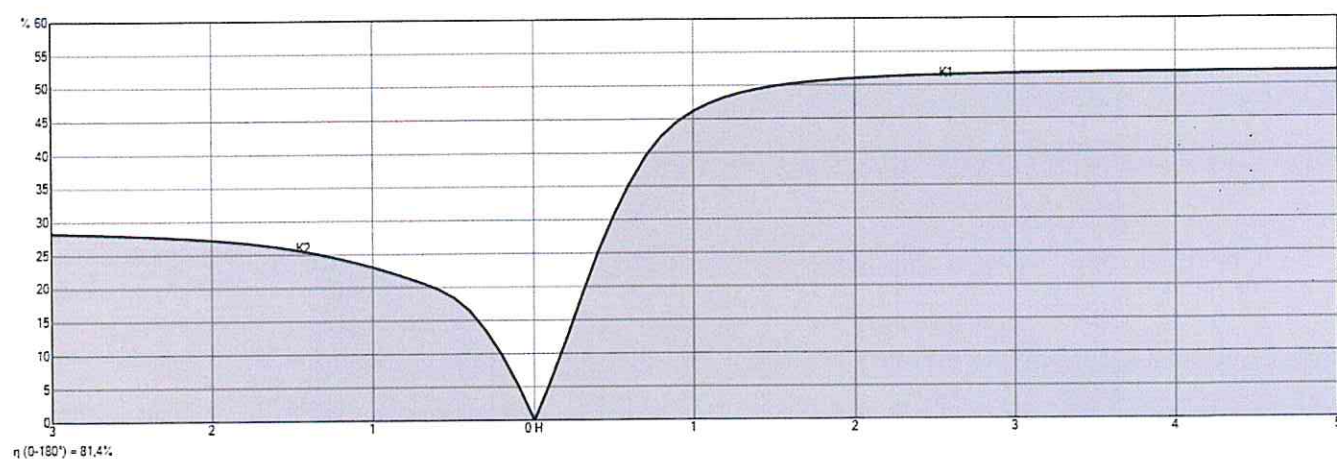
Diagramma Polare/Cartesiano



Isolux



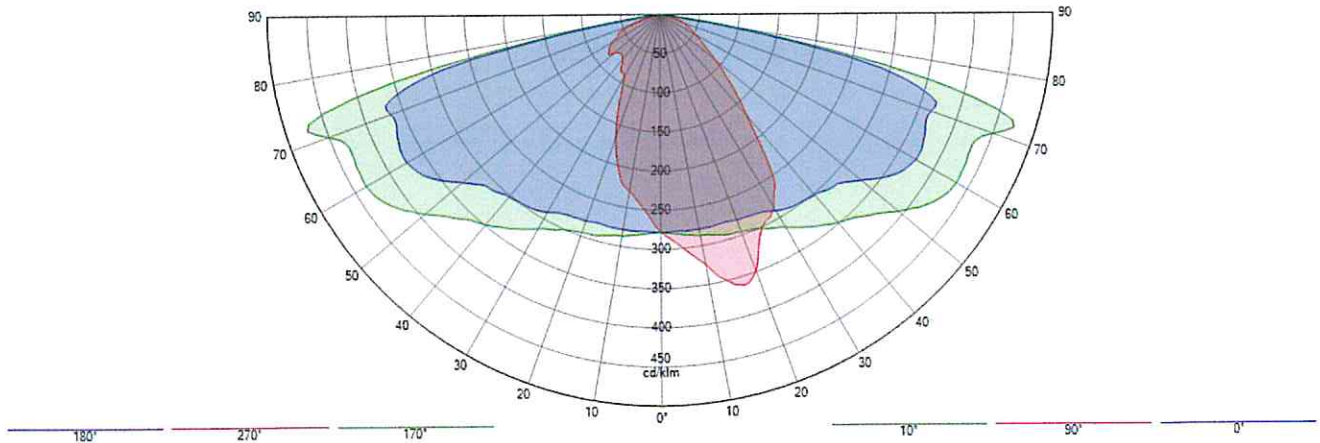
Rappresentazione del coef. di utilizzazione



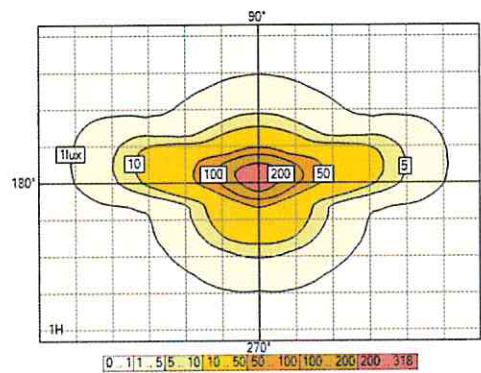
2.2. TECEO S 5245 16 XP-G3 350mA WW 18.3W 409022 [Flat glass] [fra P B] Embellishment 230V 25d 31-0

TECEO S 5245 16 TECEO S 5245 Embellishment 16 XP-G3 350mA WW 230V 00-36-646[Flat glass], [forma

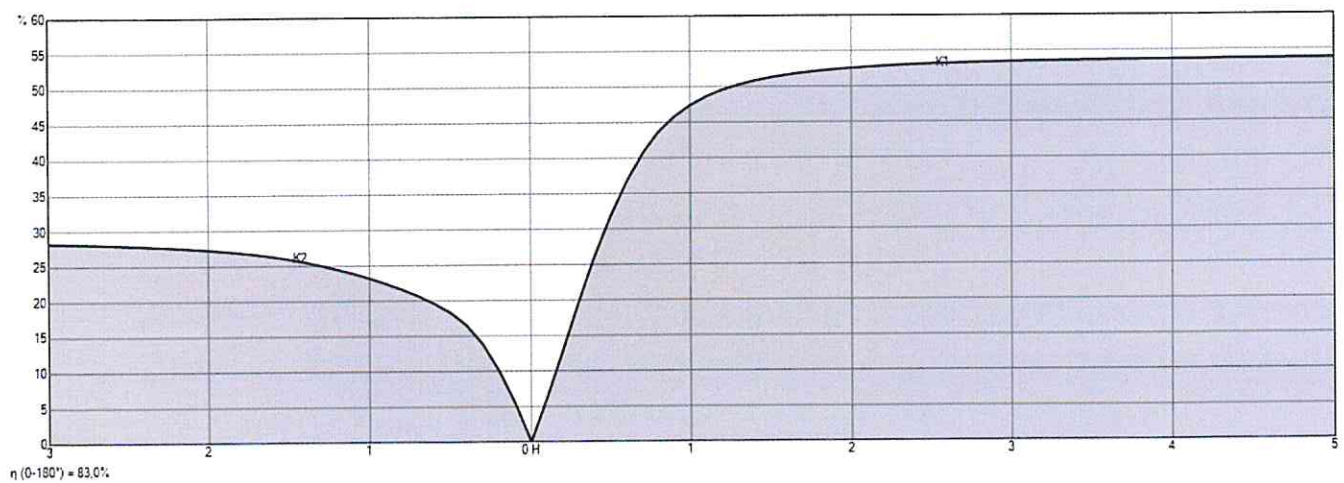
Diagramma Polare/Cartesiano



Isolux



Rappresentazione del coef. di utilizzazione



3. Risultati

3.1. Riepilogo Griglia

- Single lane with level (IL)

P2 (IL : Min = 2,00 lux Ave = 10,00 lux)

1. Illuminamento Z positivo

	Medio (M)(lux)	Min/Med (%)	Min/Max (%)	Min (lux)	Max (lux)
Dynamic cross section	13,1	67	46	8,8	19,1



- Multi-lanes (LU)

M2 (LU : Ave = 1,50 cd/m² Uo = 40 % UI = 70 % UoW = 15 % TI : 10 EIR : 0,35)

1.1 Luminanza - C2007

	Medio (M) (cd/m ²)	Min/Med (%)	Min/Max (%)	Min (cd/m ²)	Max (cd/m ²)	UL (%)
Dynamic cross section - Osservatore 1 (-60,00; -6,70; 1,50)	1,54	62	47	0,95	2,03	81 %
Dynamic cross section - Osservatore 2 (-60,00; -3,90; 1,50)	1,63	64	50	1,04	2,08	79 %



1.2 Luminanza - C2007

	Medio (M) (cd/m ²)	Min/Med (%)	Min/Max (%)	Min (cd/m ²)	Max (cd/m ²)	UL (%)
Dynamic cross section - Osservatore 1 (-60,00; -6,70; 1,50)	1,54	62	47	0,95	2,03	81 %
Dynamic cross section - Osservatore 2 (-60,00; -3,90; 1,50)	1,63	64	50	1,04	2,08	79 %



- Single lane with level (IL) (1)

P1 (IL : Min = 3,00 lux Ave = 15,00 lux)

1. Illuminamento Z positivo

	Medio (M)(lux)	Min/Med (%)	Min/Max (%)	Min (lux)	Max (lux)
Dynamic cross section	19,6	26	11	5,0	46,0



3.2. Riepilogo Osservatori

- Multi-lanes (TI 1)

M2 (LU : Ave = 1,50 cd/m² Uo = 40 % UI = 70 % UoW = 15 % TI : 10 EIR : 0,35)

	TI
Dynamic cross section - Direzioni (0,0)	8



- Multi-lanes (TI 2)

M2 (LU : Ave = 1,50 cd/m² Uo = 40 % UI = 70 % UoW = 15 % TI : 10 EIR : 0,35)

	TI
Dynamic cross section - Direzioni (0,0)	9



3.3. Riepilogo dei valori

- EIR strada

M2 (LU : Ave = 1,50 cd/m² Uo = 40 % UI = 70 % UoW = 15 % TI : 10 EIR : 0,35)

	EIR strada
Dynamic cross section - Multi-lanes (EIR)	0,65



4. Summary power

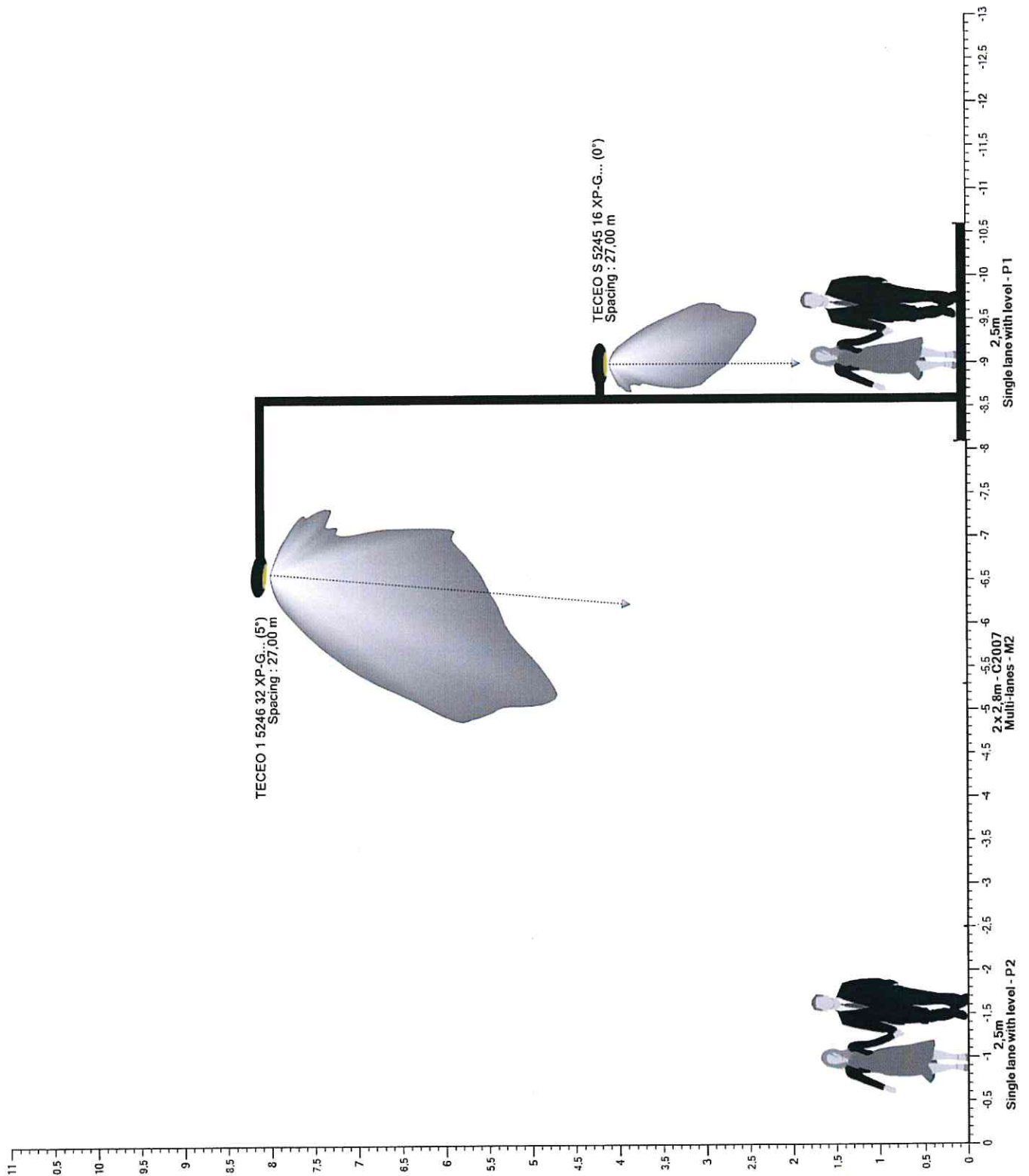
4.1. Dynamic cross section

Apparecchi	Quantità	Dimmeraggio	Potenza / Apparecchi	Totale
TECEO 1 5246 32 XP-G3 500mA WW 49.5W 407292 Flat glass - 230V 25d 31-08-18A EF	37	100 %	49 W	1815 W
TECEO S 5245 16 XP-G3 350mA WW 18.3W 409022 [Flat glass] [fra P B] Embellishment ...	37	100 %	18 W	667 W

Totale : 2481 W



5. Sezione incrocio

5.1. Vista2D



6. Dynamic cross section

6.1. Descrizione matrice

Ph. color	Matrice	Descrizione	Flusso di lampada [klm]	Flusso apparecchio [klm]	Efficienza [lm/W]	FM	Altezza	Apparecchiatura
	407292	TECEO 1 5246 32 XP-G3 500mA WW 49.5W Flat glass - 230V 25d 31-08-18A EF	6,576	5,355	109	1,000	6 x 8,10	
	409022	TECEO S 5245 16 XP-G3 350mA WW 18.3W [Flat glass] [fra P B] Embellishment 230V 25d 31-08-18A EF	2,400	1,991	111	0,900	6 x 4,20	

6.2. Posizione apparecchi

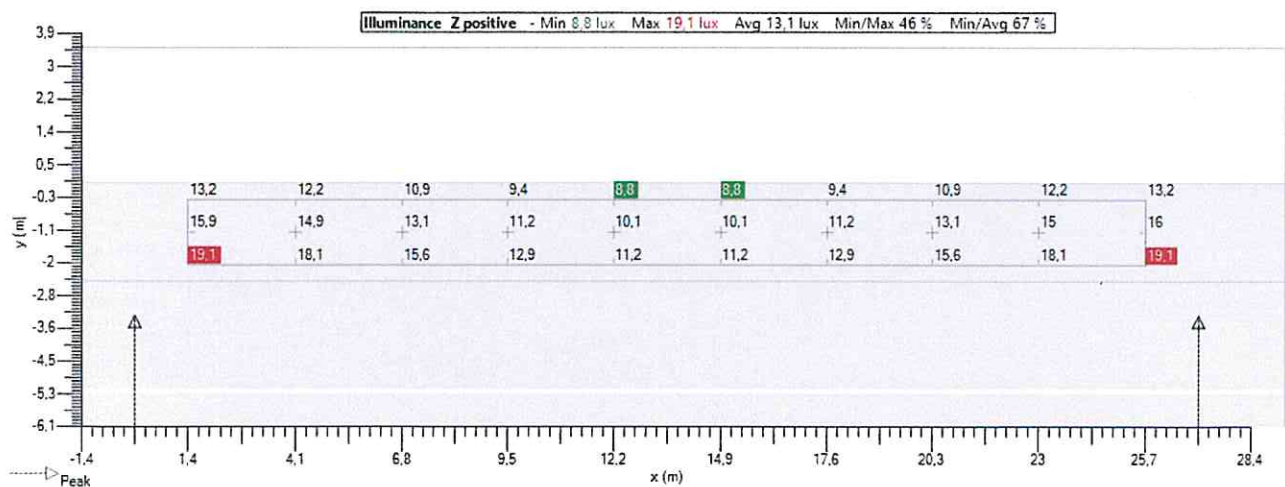
	N°	Posizione			Apparecchio							Bersaglio		
		X [m]	Y [m]	Z [m]	Matrice	Descrizione	Az [°]	TI [°]	Rot [°]	Flusso [klm]	FM	X [m]	Y [m]	Z [m]
<input checked="" type="checkbox"/>	1	-27,00	-8,80	4,20	409022	TECEO S 5245 16 XP-G3 350mA WW 18.3W 407292	180,0	0,0	0,0	2,400	0,900	-27,00	-8,80	0,00
<input checked="" type="checkbox"/>	2	-27,00	-6,80	8,10	407292	TECEO 1 5246 32 XP-G3 500mA WW 49.5W 407292	0,0	5,0	0,0	6,576	1,000	-27,00	-6,09	0,00
<input checked="" type="checkbox"/>	3	0,00	-8,80	4,20	409022	TECEO S 5245 16 XP-G3 350mA WW 18.3W 407292	180,0	0,0	0,0	2,400	0,900	0,00	-8,80	0,00
<input checked="" type="checkbox"/>	4	0,00	-6,80	8,10	407292	TECEO 1 5246 32 XP-G3 500mA WW 49.5W 407292	0,0	5,0	0,0	6,576	1,000	0,00	-6,09	0,00
<input checked="" type="checkbox"/>	5	27,00	-8,80	4,20	409022	TECEO S 5245 16 XP-G3 350mA WW 18.3W 407292	180,0	0,0	0,0	2,400	0,900	27,00	-8,80	0,00
<input checked="" type="checkbox"/>	6	27,00	-6,80	8,10	407292	TECEO 1 5246 32 XP-G3 500mA WW 49.5W 407292	0,0	5,0	0,0	6,576	1,000	27,00	-6,09	0,00
<input checked="" type="checkbox"/>	7	54,00	-8,80	4,20	409022	TECEO S 5245 16 XP-G3 350mA WW 18.3W 407292	180,0	0,0	0,0	2,400	0,900	54,00	-8,80	0,00
<input checked="" type="checkbox"/>	8	54,00	-6,80	8,10	407292	TECEO 1 5246 32 XP-G3 500mA WW 49.5W 407292	0,0	5,0	0,0	6,576	1,000	54,00	-6,09	0,00
<input checked="" type="checkbox"/>	9	81,00	-8,80	4,20	409022	TECEO S 5245 16 XP-G3 350mA WW 18.3W 407292	180,0	0,0	0,0	2,400	0,900	81,00	-8,80	0,00
<input checked="" type="checkbox"/>	10	81,00	-6,80	8,10	407292	TECEO 1 5246 32 XP-G3 500mA WW 49.5W 407292	0,0	5,0	0,0	6,576	1,000	81,00	-6,09	0,00
<input checked="" type="checkbox"/>	11	108,00	-8,80	4,20	409022	TECEO S 5245 16 XP-G3 350mA WW 18.3W 407292	180,0	0,0	0,0	2,400	0,900	108,00	-8,80	0,00
<input checked="" type="checkbox"/>	12	108,00	-6,80	8,10	407292	TECEO 1 5246 32 XP-G3 500mA WW 49.5W 407292	0,0	5,0	0,0	6,576	1,000	108,00	-6,09	0,00

6.3. Gruppi apparecchi

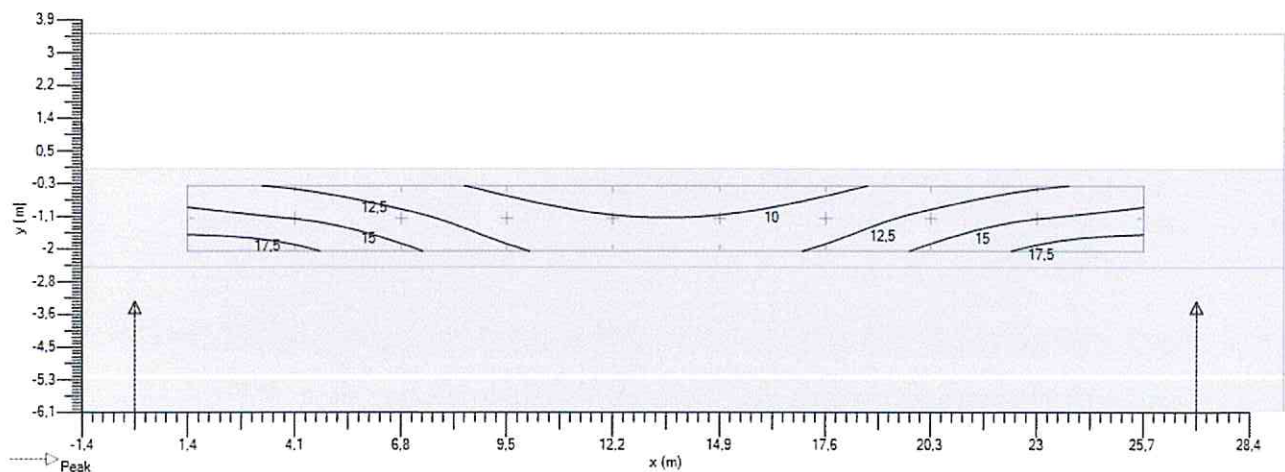
Lineare															
	N°	Posizione			Apparecchio				Dimensioni			Rotazione			
		X [m]	Y [m]	Z [m]	Matrice	Az [°]	TI [°]	Rot [°]	Dim [%]	Conteggi o	Distanza [m]	Taglia [m]	X [°]	Y [°]	Z [°]
<input checked="" type="checkbox"/>	1	-27,00	-8,80	4,20	409022	180,0	0,0	0,0	100	6	27,00	135,00	0,0	0,0	0,0
<input checked="" type="checkbox"/>	2	-27,00	-6,80	8,10	407292	0,0	5,0	0,0	100	6	27,00	135,00	0,0	0,0	0,0

6.4. Single lane with level (IL) - Illuminamento Z positivo

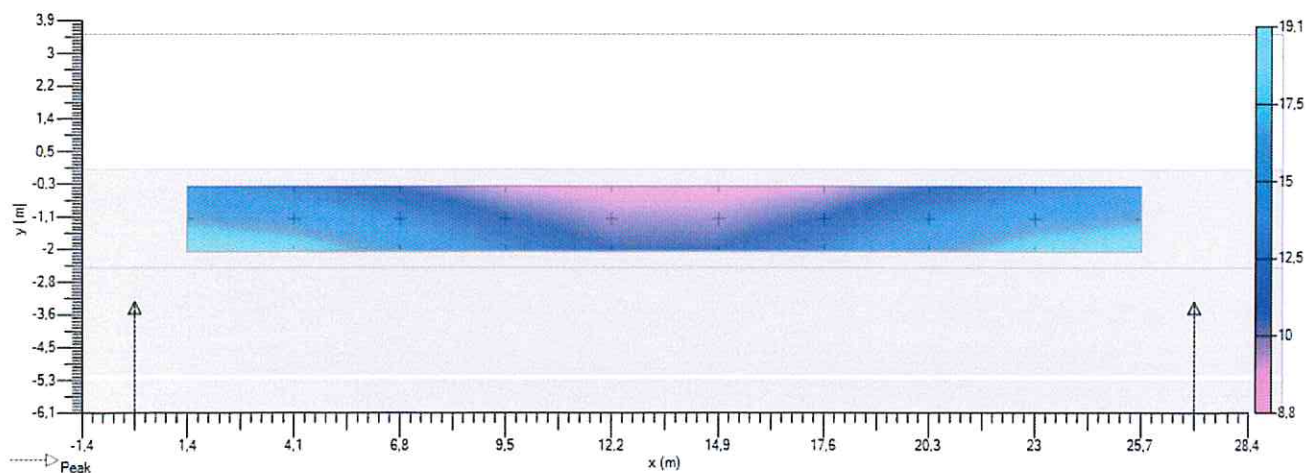
Valori



Isolinee



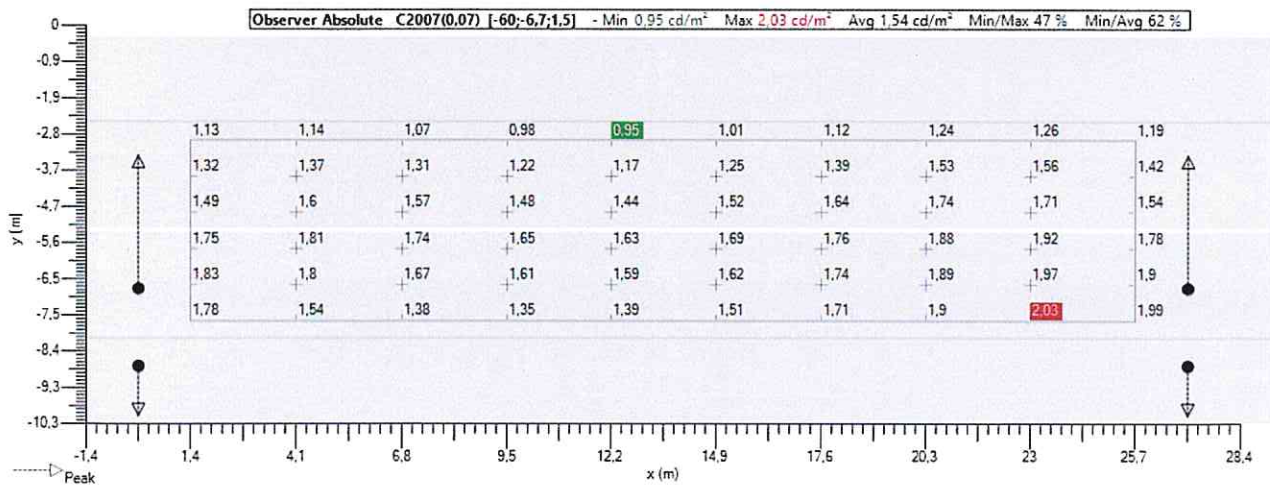
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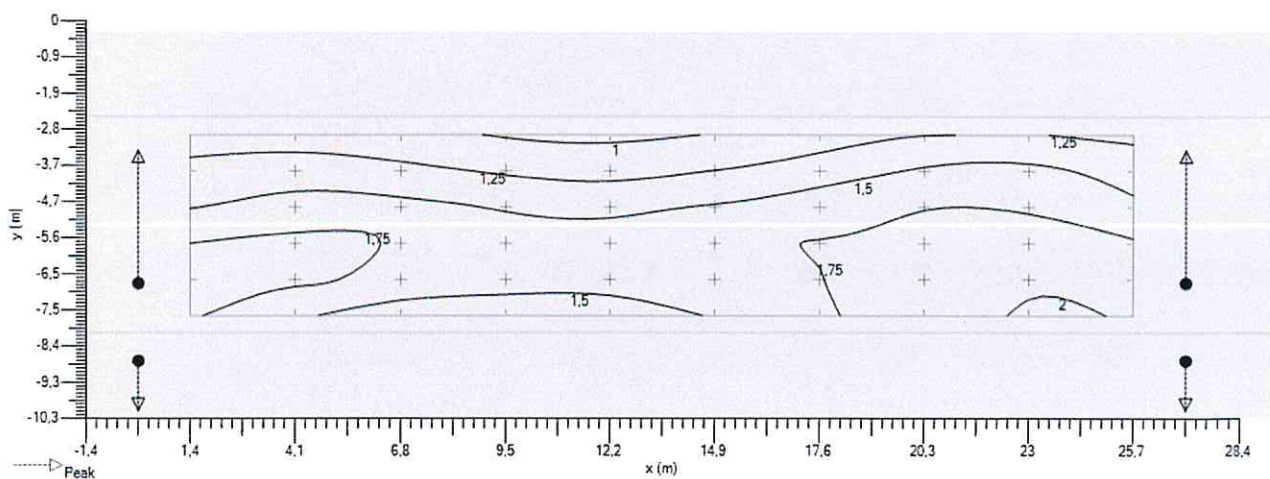
6.5. Multi-lanes (LU) - C2007 - Luminanza

6.5.1. Multi-lanes (LU) - Luminanza - Osservatore assoluta

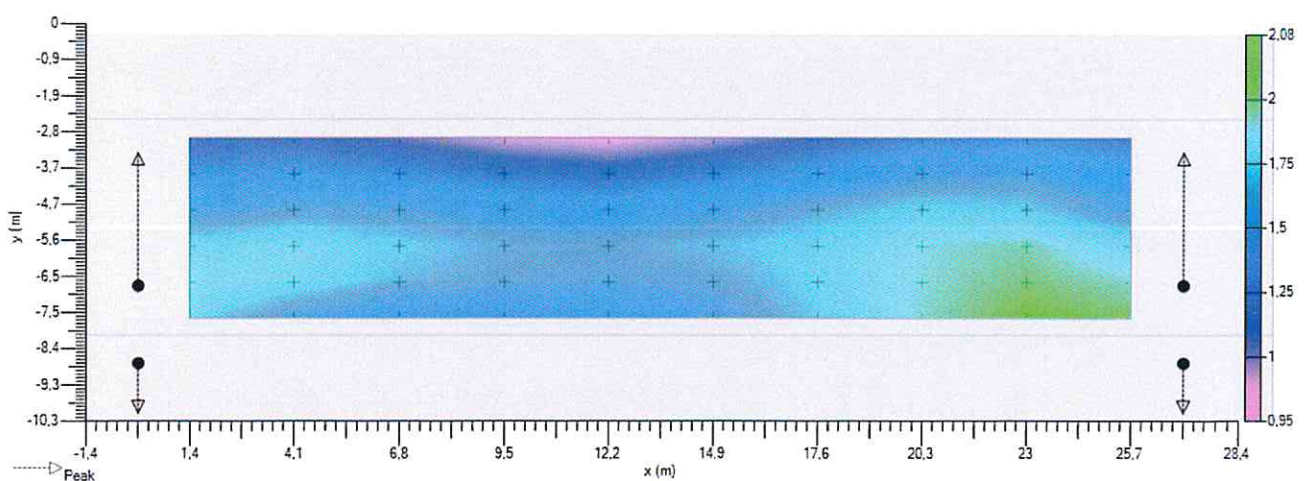
Valori



Isolinee

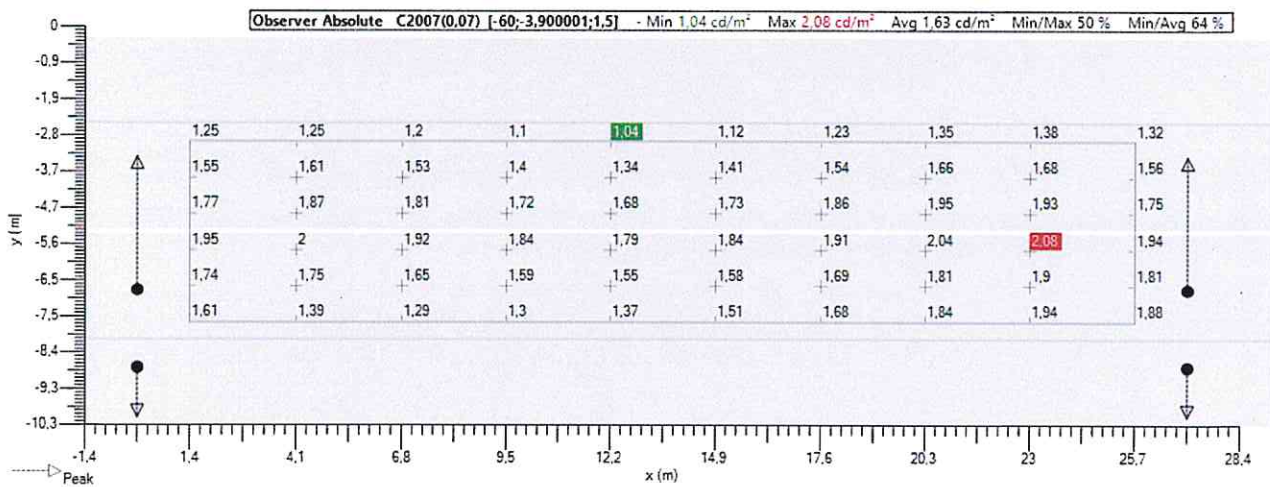


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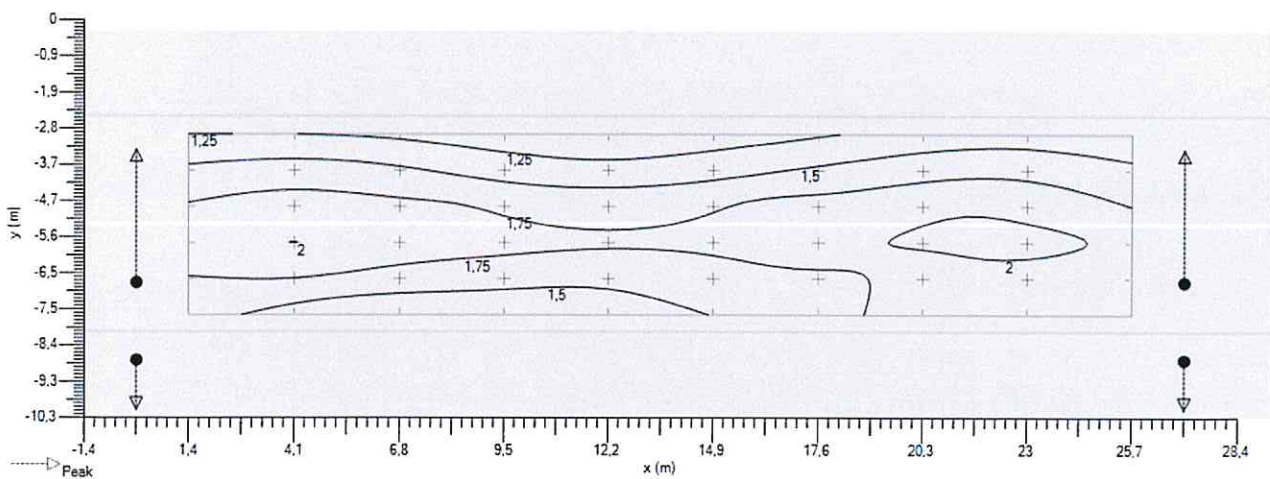


6.5.2. Multi-lanes (LU) - Luminanza - Osservatore assoluta

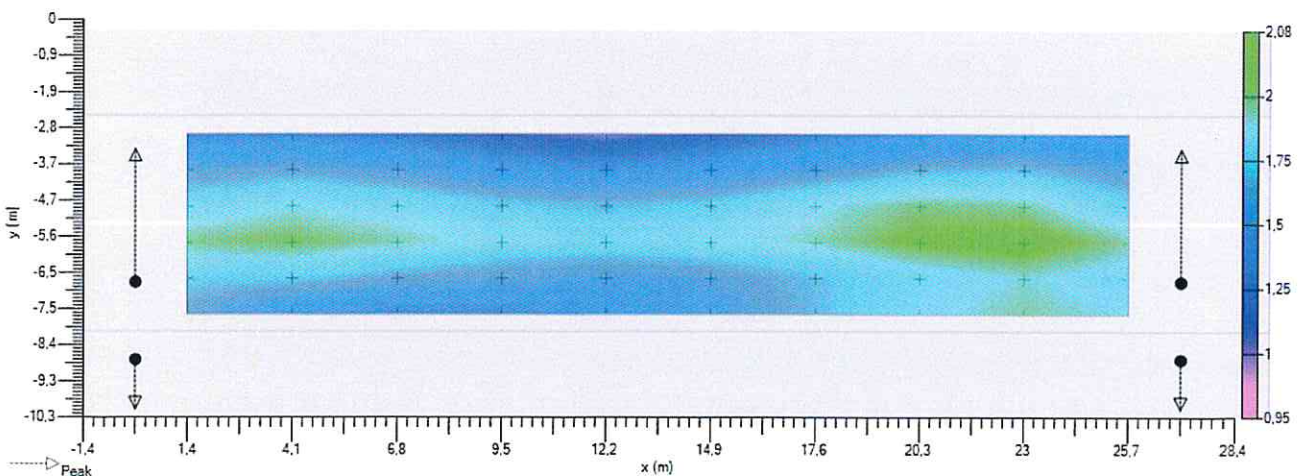
Valori



Isolinee



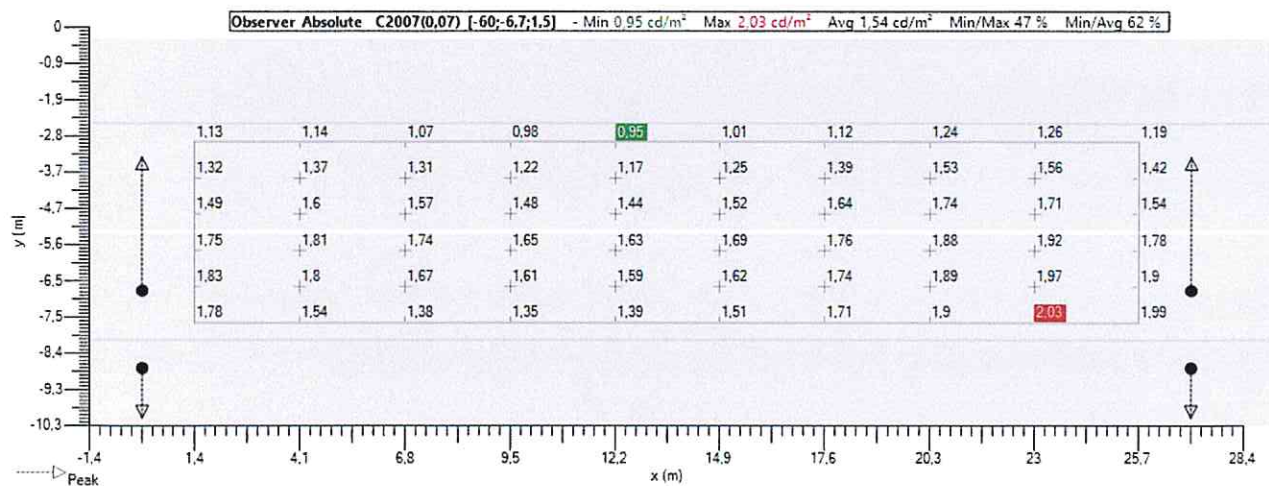
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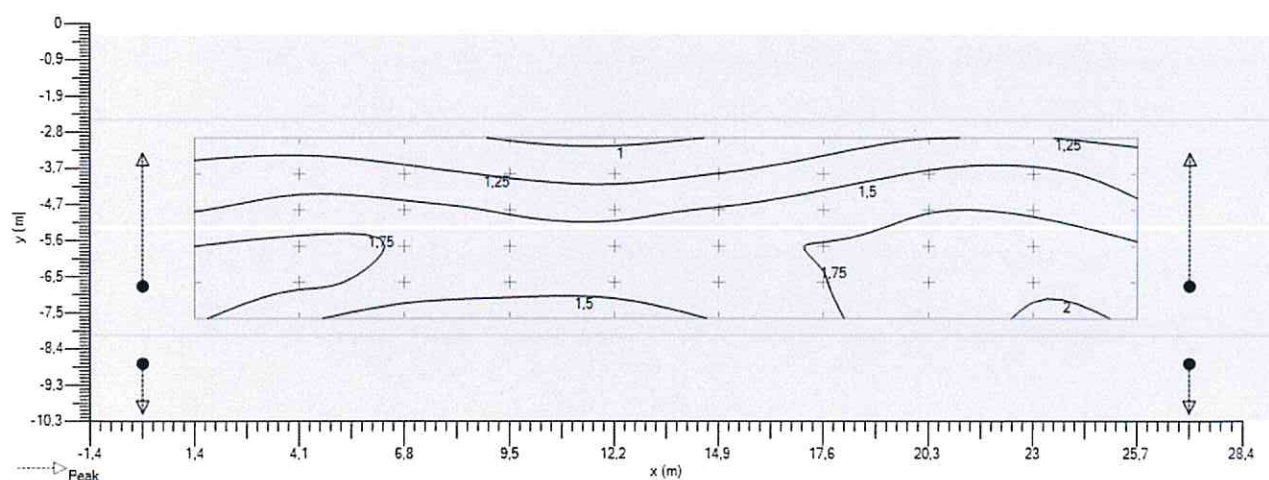
6.6. Multi-lanes (LU) - C2007 - Luminanza

6.6.1. Multi-lanes (LU) - Luminanza - Osservatore - Opzionale

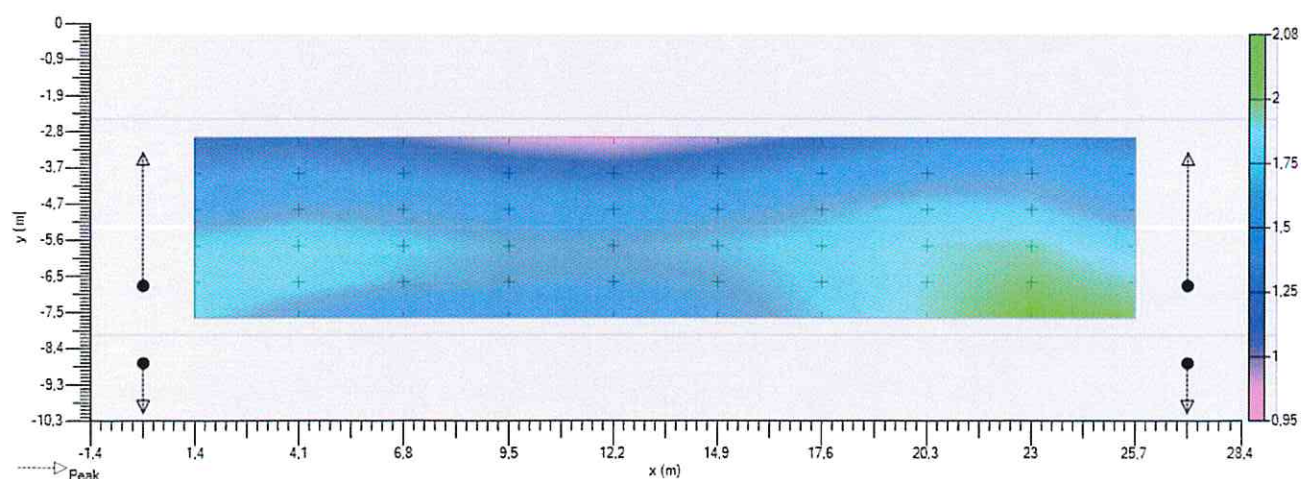
Valori



Isolinee

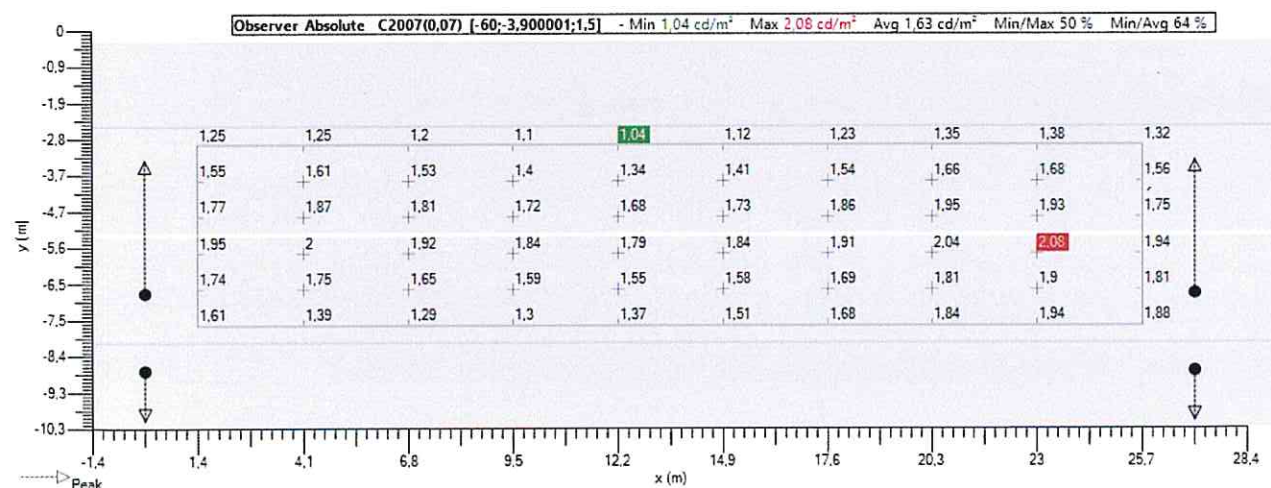


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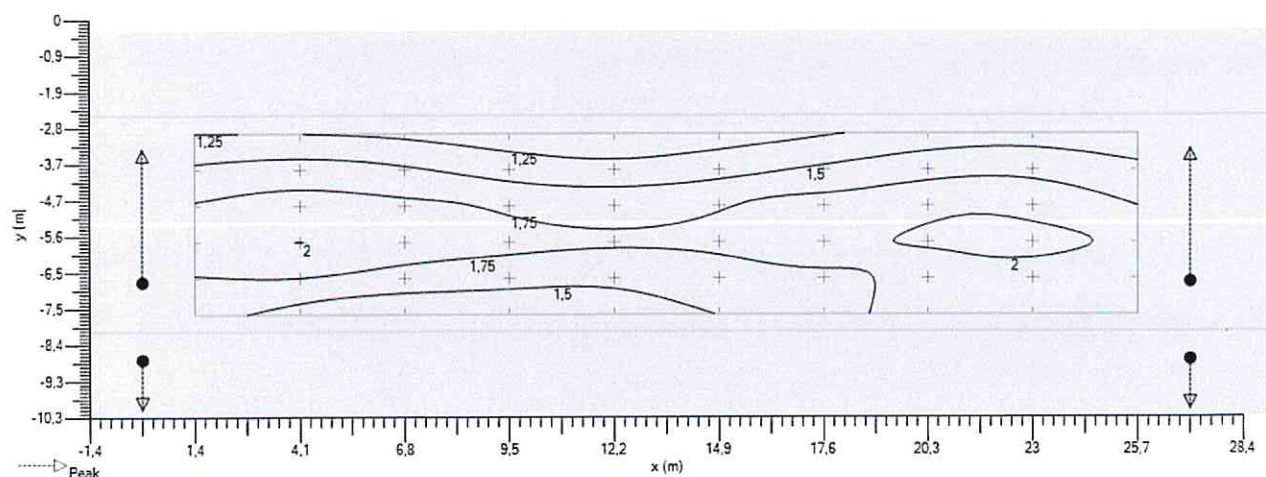


6.6.2. Multi-lanes (LU) - Luminanza - Osservatore - Opzionale

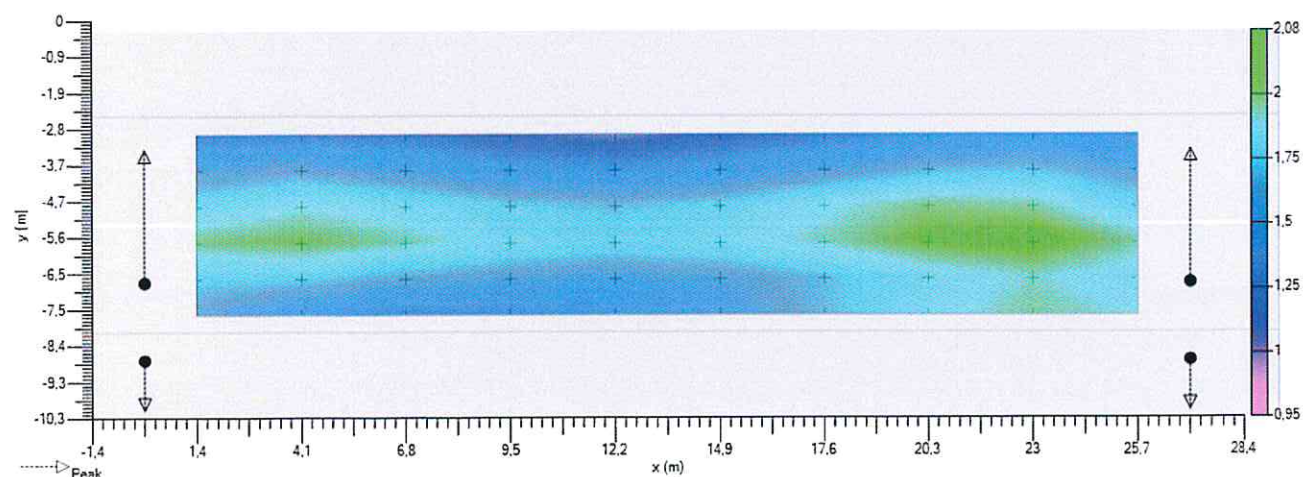
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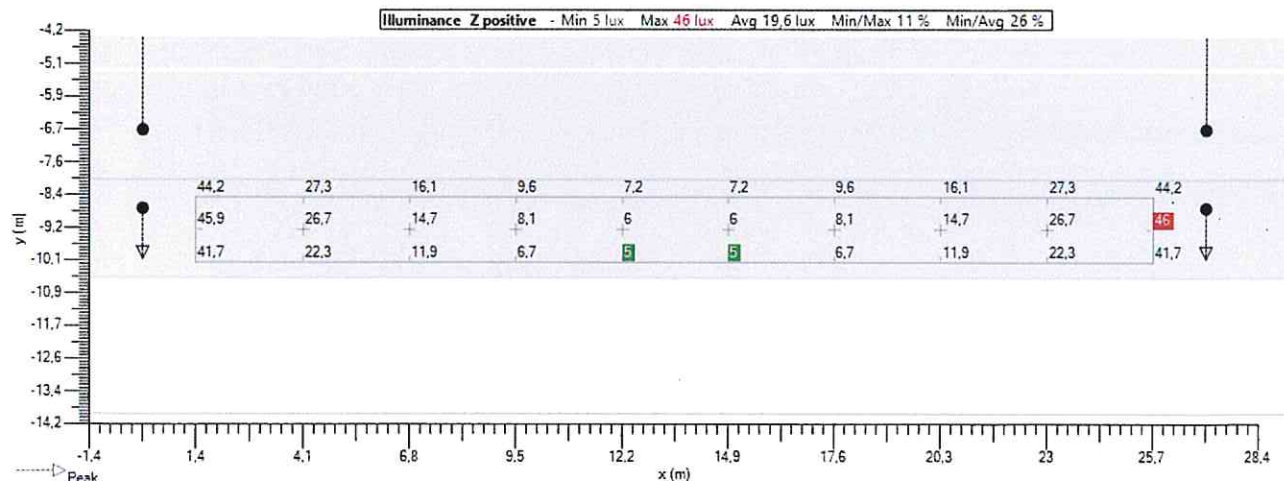


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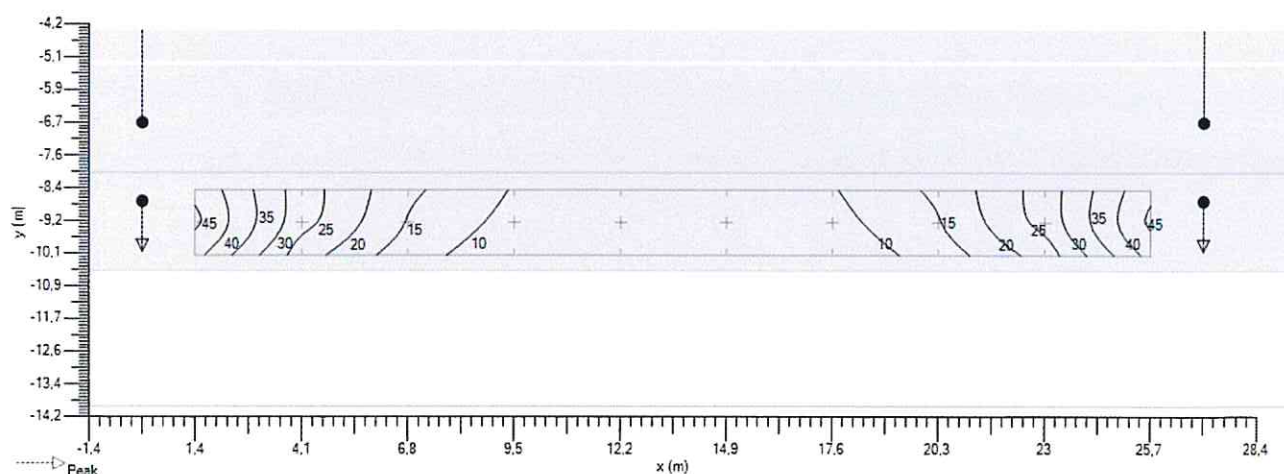


6.7. Single lane with level (IL) (1) - Illuminamento Z positivo

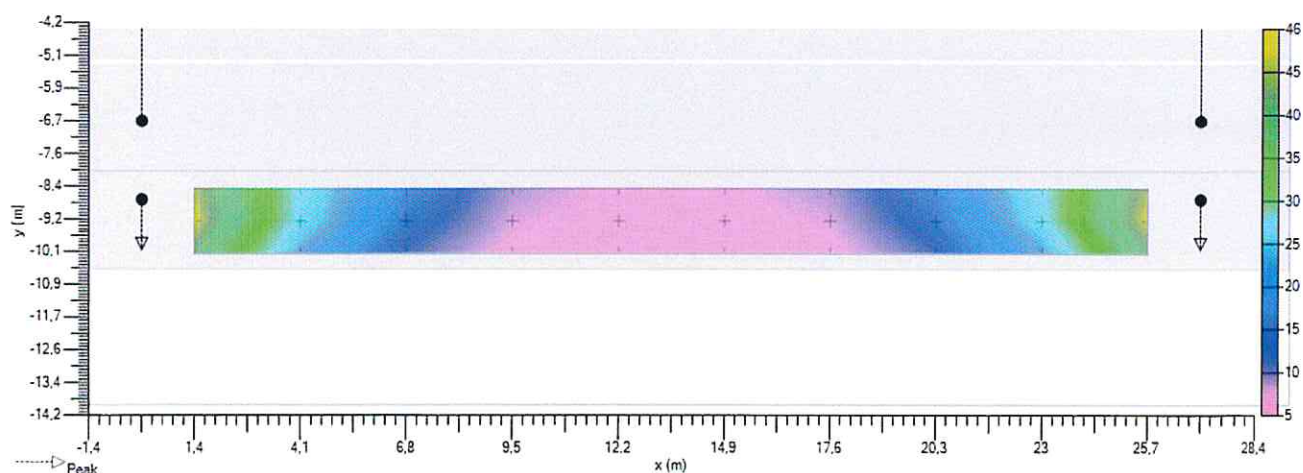
Valori



Isolinee

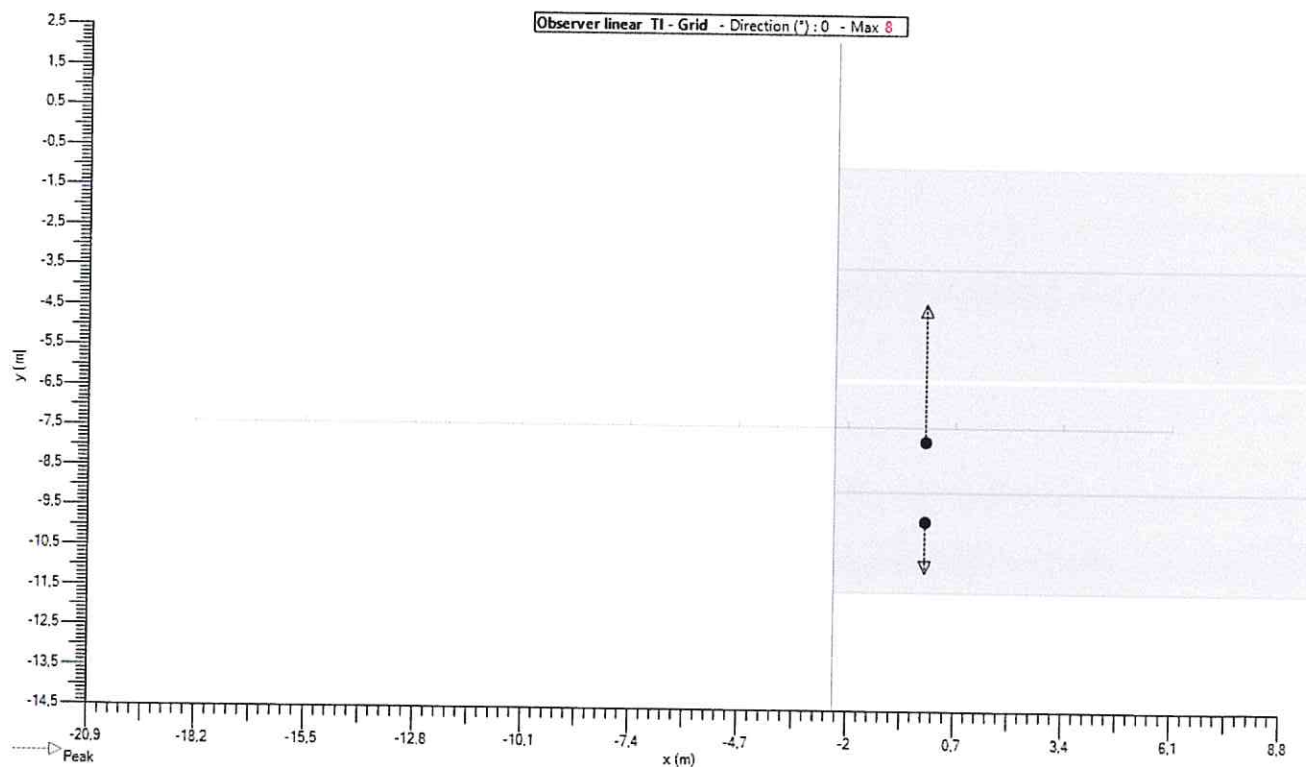


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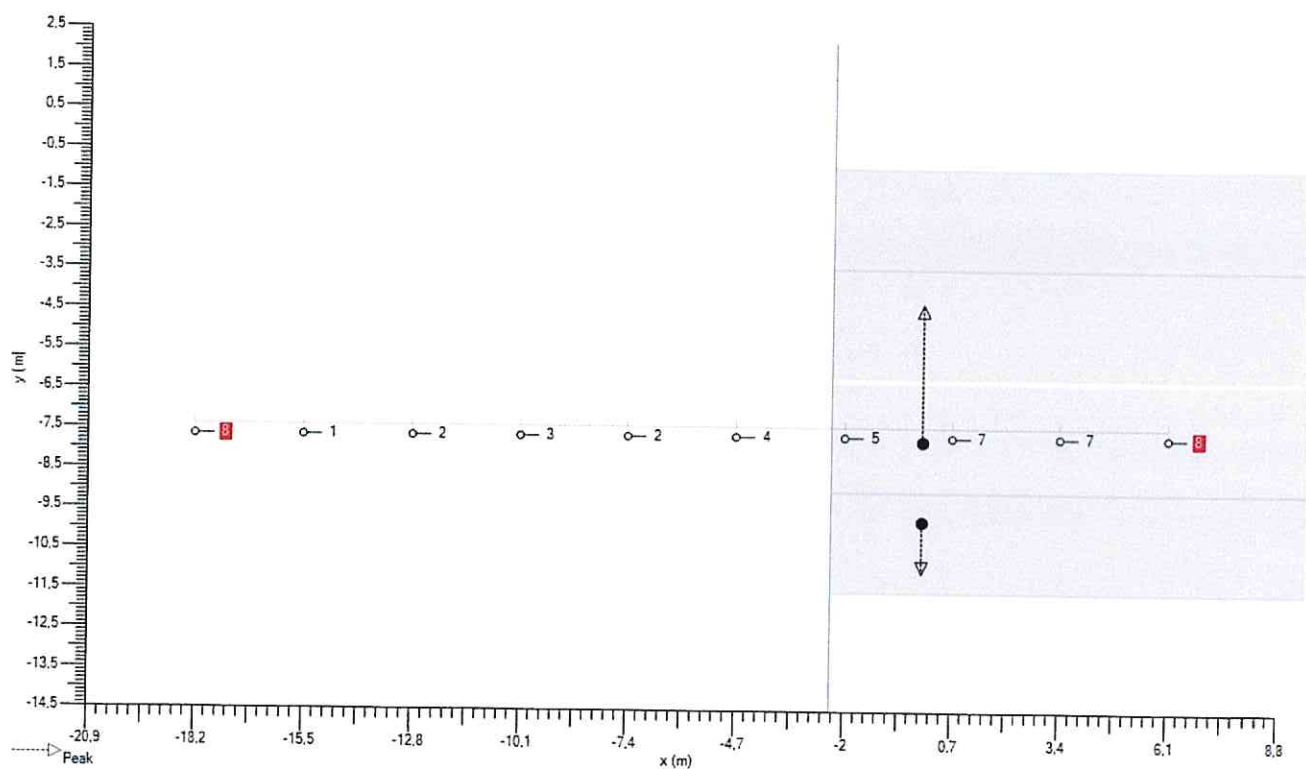


6.8. Multi-lanes (TI 1) - Observer linear - TI - Griglia

Implantation

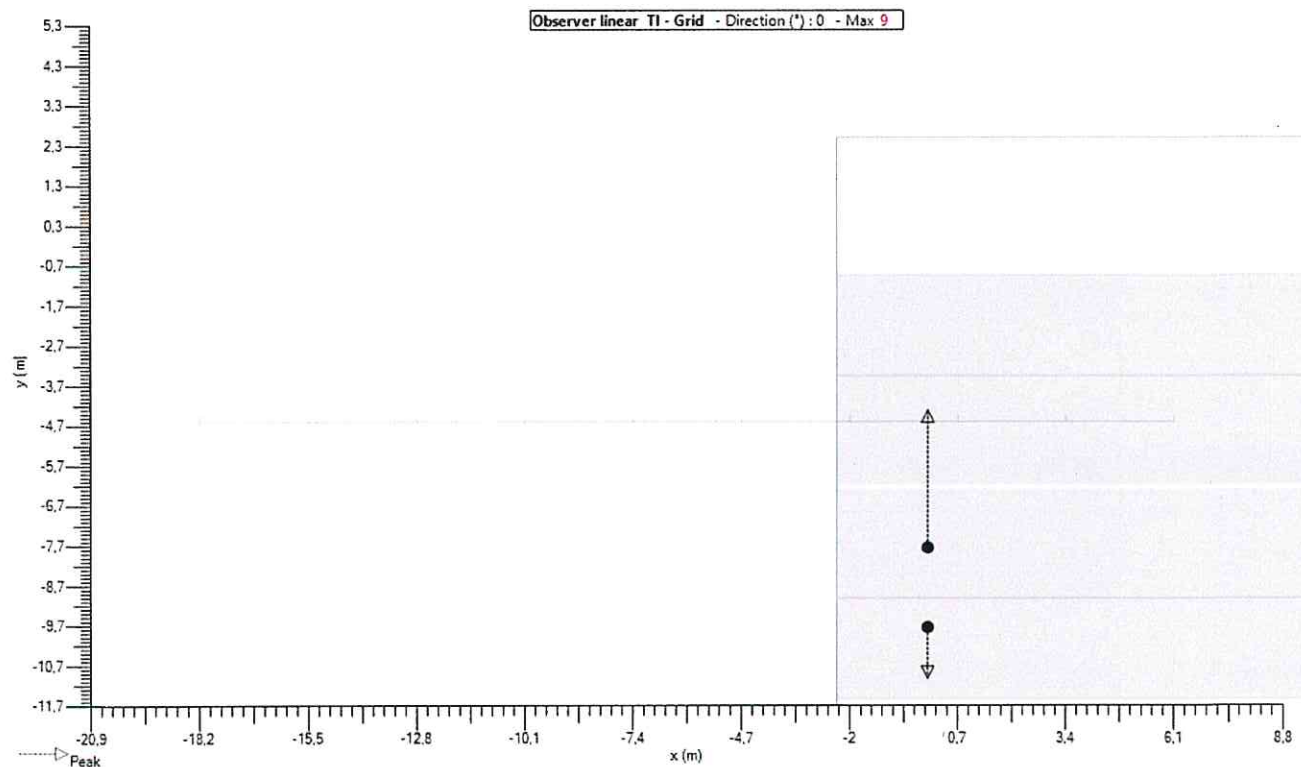


Valori

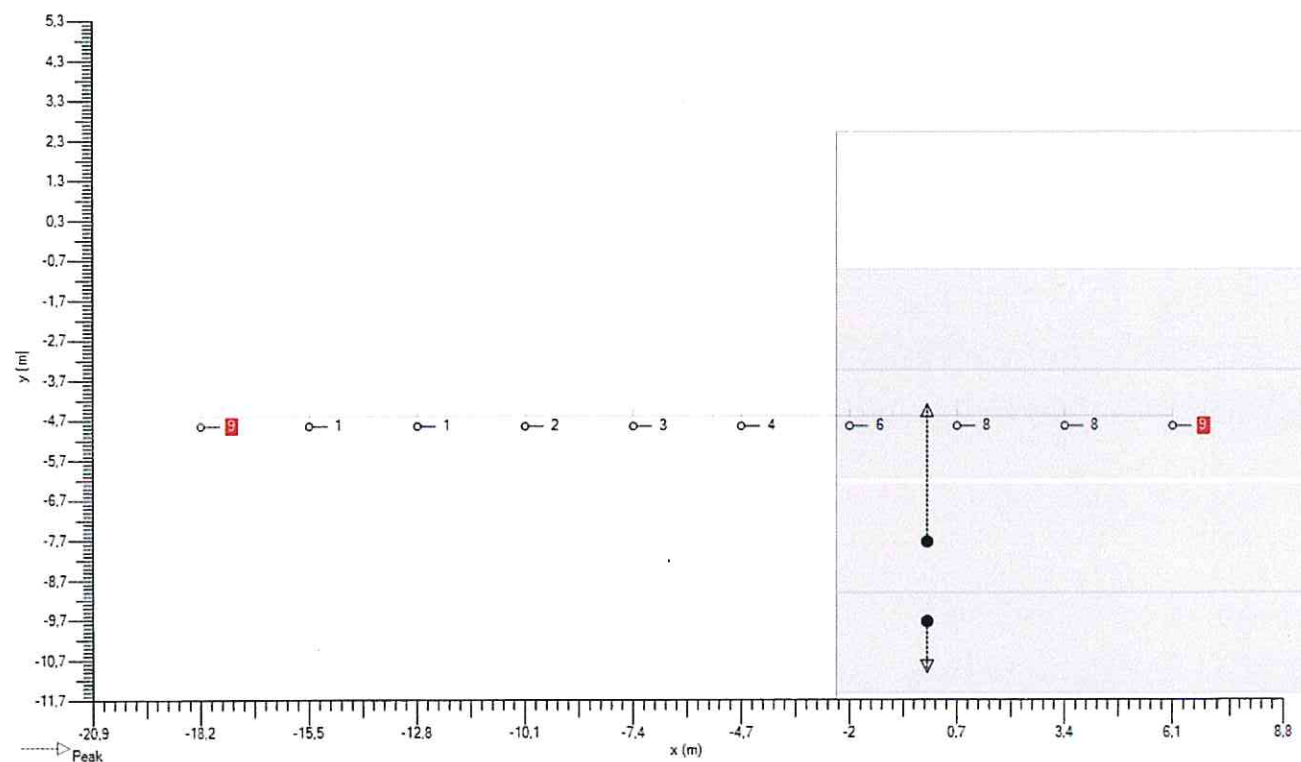


6.9. Multi-lanes (TI 2) - Observer linear - TI - Griglia

Implantation



Valori




7. Griglie

7.1. Single lane with level (IL)

Generale

Tipologia : Griglia rettangolare XY

Uso Esclusivo : -

It : ☒Colore : 

Geometria

Origine

X : Y : Z : m

Rotazione

X : Y : Z : °

Dimensione


Conteggio X : Conteggio Y : Distanza X : Distanza Y : mTaglia X : Taglia Y : m

7.2. Multi-lanes (LU)

Generale

Tipologia : Griglia rettangolare XY

Uso Esclusivo : -

It : ☒Colore : 

Geometria

Origine

X : Y : Z : m

Rotazione

X : Y : Z : °

Dimensione

Conteggio X : Conteggio Y : Distanza X : Distanza Y : mTaglia X : Taglia Y : m


7.3. Single lane with level (IL) (1)

Generale

Tipologia : Griglia rettangolare XY

Uso Esclusivo : -

It : ☒

Colore : 

Geometria

Origine

X :

Y :

Z : m

Rotazione

X :

Y :

Z : °

Dimensione

Conteggio X :

Conteggio Y :

Distanza X :

Distanza Y : m

Taglia X :

Taglia Y : m

8. Osservatore

8.1. Multi-lanes (TI 1)

General

Tipologia : Observer linear

It : ☒_Color : 

Calculation

_Calculation : TI - Griglia

Direzioni : 0,0

Griglia : Multi-lanes (LU)

Geometry

Origine

X : -18,15

Y : -6,70

Z : 1,50 m

Rotazione

X : 0,0

Y : 0,0

Z : 0,0 °

Dimension

Conteggio : 10


Distanza : 2,70 m

Size : 24,30 m

8.2. Multi-lanes (TI 2)

General

Tipologia : Observer linear

It : ☒_Color : 

Calculation

_Calculation : TI - Griglia

Direzioni : 0,0

Griglia : Multi-lanes (LU)

Geometry

Origine

X : -18,15

Y : -3,90

Z : 1,50 m

Rotazione

X : 0,0

Y : 0,0

Z : 0,0 °

Dimension

Conteggio : 10

Distanza : 2,70 m

Size : 24,30 m