



# Anas SpA

Area Compartimentale Valle d'Aosta

**Intervento di manutenzione straordinaria per l'adeguamento dei livelli di luminanza mediante il rifacimento degli impianti di illuminazione e di segnalazione della galleria "Elevaz 1" dal km 138+000 al km 138+370 della SS 26 "della Valle D'Aosta"**

**PROGETTAZIONE : PROGETTO ESECUTIVO**

**ANAS - COMPARTIMENTO DI AOSTA**

I PROGETTISTI

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VISTO: IL RESP. DEL PROCEDIMENTO

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SIL AO2016MS110

DATA

**PERIZIA n. 18 del 21.02.2017**

ELABORATO

# 16

## Calcoli e verifiche illuminotecniche

CODICE PROGETTO

NOME FILE

REVISIONE

SCALA:

PROGETTO LIV. PROG. N. PROG.

COAO0018E 9858

CODICE ELAB. P00IM00IMP03

A

C	G					
B	F					
A	EMISSIONE		20/01/2017	G.PARODI	M.CAMBIASO	
REV.	DESCRIZIONE		DATA	REDATTO	VERIFICATO	APPROVATO

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# GALLERIA ELEVAZ 1

Note Installazione:

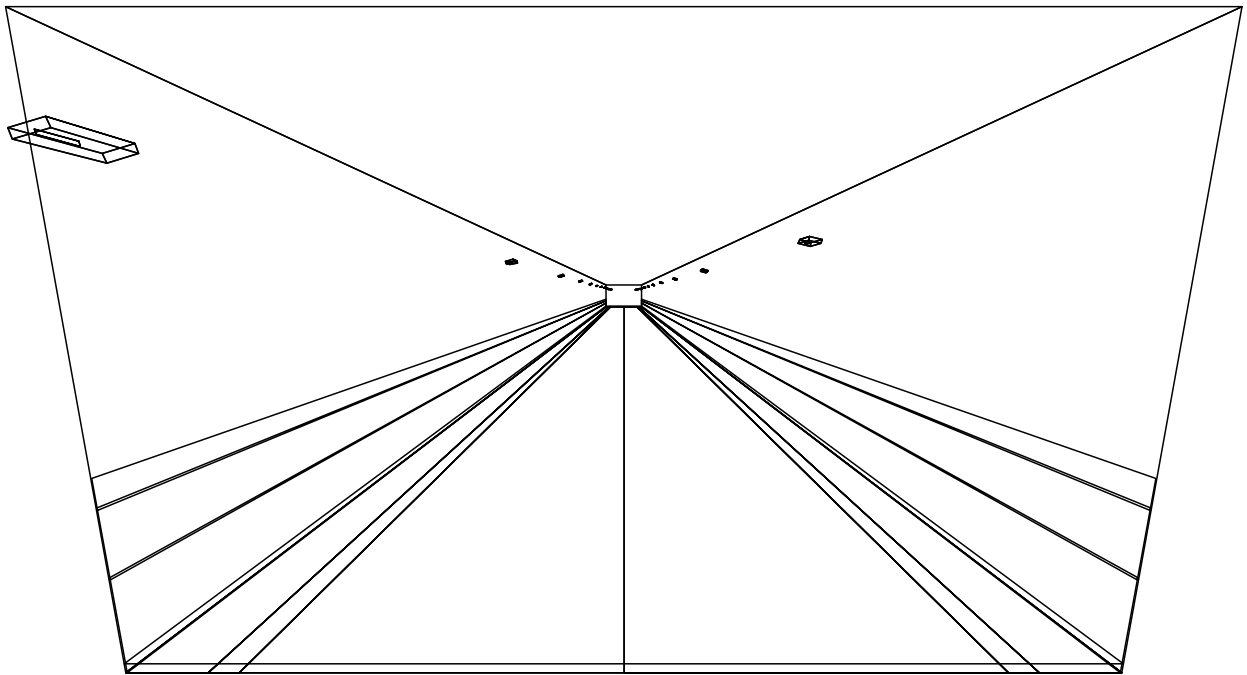
Cliente:

Codice Progetto: PRJ10715\_REV\_0\_ELEVAZ 1\_PERM

Data

07/10/2016

Note



Lighting Designer:

Indirizzo:

Tel.-Fax

Ing. Maurizio Cambiaso

Via B.Liguria 1/9 sc. A

0108690286

Avvertenze:

## 1.1 Informazioni Area

### Dati Strada

Zona	Tipo Zona	Corsia	Senso di marcia	Larghezza [m] (W)	y1 [m]	y2 [m]	Pt.Calc.Y (E)	Pt.Calc.Y (L)	Alt. Zona [m] (HC)	Colore	Tabella R	Coeff.Rif. Fattore q0
Marc_A	Pista Ciclo/Pedonal	Marc_A_C1	--->	0.80	0.00	0.80	3	3	0.00	RGB=219,54,36		30.00
Secondari:	Secondaria	Generica	--->	0.30	0.80	1.10	3	3	0.00	RGB=0,255,0	C2	5.60
Carregg_A	Carrabile			7.50	1.10	8.60	5		0.00	RGB=126,126,126	C2	5.60
		Carregg_A_C1	--->	3.75	1.10	4.85		3				
		Carregg_A_C2	<---	3.75	4.85	8.60		3				
Secondari:	Secondaria	Generica	<---	0.30	8.60	8.90	3	3	0.00	RGB=0,255,0	C2	5.60
Marc_B	Pista Ciclo/Pedonal	Marc_B_C1	<---	0.80	8.90	9.70	3	3	0.00	RGB=219,54,36		30.00

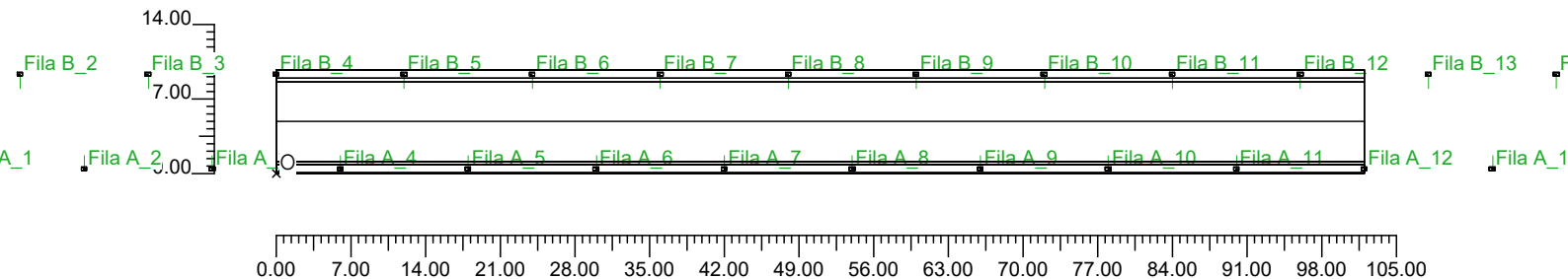
Pareti = 40% diffusive

### Dati Installazione Apparecchi

Nome Fila	1° Palo x [m] (XP)	1° Palo y [m] (YP)	Altez.App. [m] (H)	Num. Pali	Interd. [m] (D)	Sbraccio [m] (L)	Ang.Incl. [°] (RY)	Rot.Sbraccio [°] (RZ)	Ang.Incl.Lat. [°] (RX)	Fatt.Manut. [%]	Codice Apparecchio	Flusso [lm]	Rif.
Fila A	-30.00	0.40	4.90	15	12.00	0.00	15	90	0	80.00	20 LED OTT.A	4420	A
Fila B	-36.00	9.30	4.90	15	12.00	0.00	15	270	0	80.00	20 LED OTT.A	4420	A

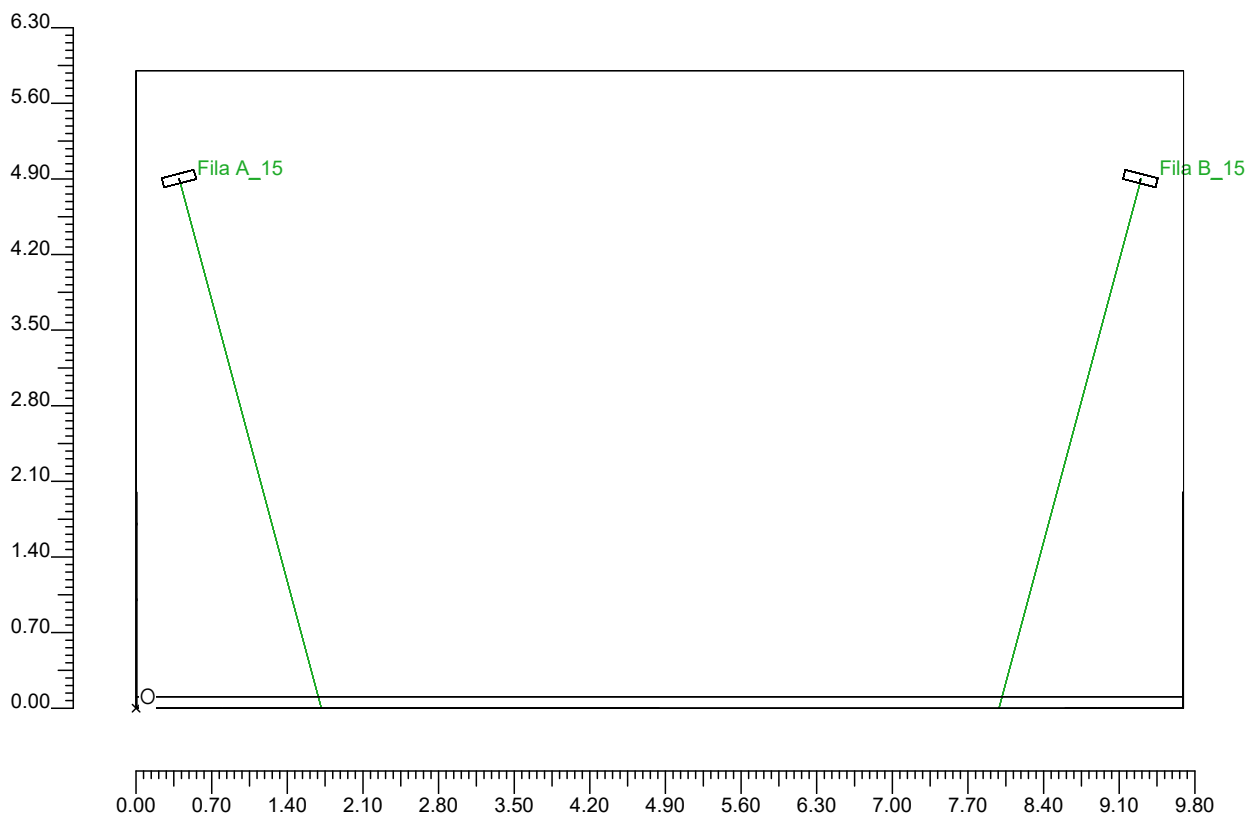
## 2.1 Vista 2D in Pianta

Scala 1/700



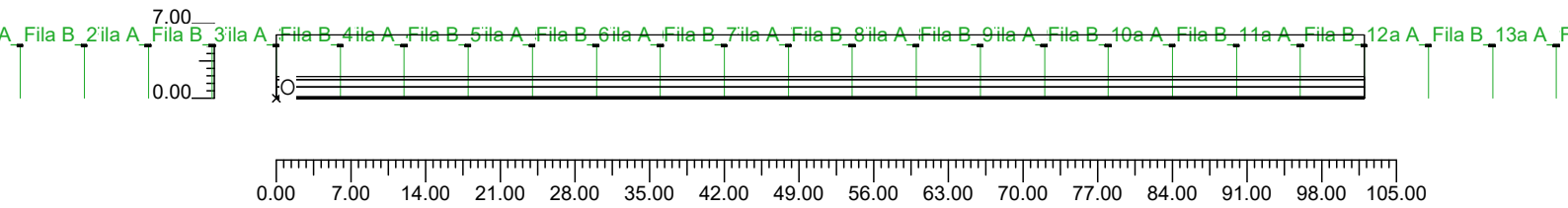
## 2.2 Vista Laterale

Scala 1/70



### 2.3 Vista Frontale

Scala 1/700



### 3.1 Informazioni Apparecchi/Rilievi

Rif.	Linea	Nome Apparecchio (Nome Rilievo)	Codice Apparecchio (Codice rilievo)	Apparecchi n.	Rif.Lamp.	Lampade n.
A	ott. A	20led 700mA A ( ott. A)	20 LED OTT.A	30	LMP-A	1

### 3.2 Informazioni Lampade

Rif.Lamp.	Tipo	Codice	Flusso lm	Potenza W	Colore K	n.
LMP-A	LED	20led A	4420	45	4000	-

**4.1 Valori delle Luminanze su: Carregg A 1 Oss. 1(x=-60.00;y=2.97;z=1.50)m**

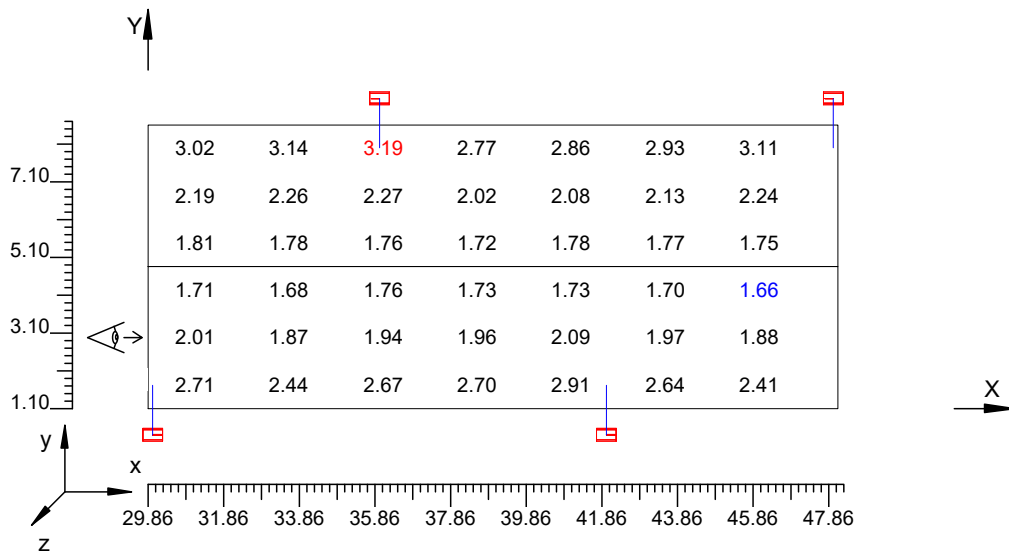
O (x:29.86 y:1.10 z:0.00)	Risultati	Medio	Minimo	Massimo	Min/Medio	Min/Max	Medio/Max
DX:2.49 DY:1.25	Luminanza (L)	2.21 cd/m <sup>2</sup>	1.66 cd/m <sup>2</sup>	3.19 cd/m <sup>2</sup>	0.75	0.52	0.69

Tipo Calcolo

Dir.+Indir.(1 Interriflessioni) + Arredi

Nome Corsia	Largh. Corsia [m] (W)	y1 [m]	y2 [m]	Pt.Calc.Y	Tabella R	Coeff.Rifl. Fattore q0	Osservatore x Assoluto [m]	Osservatore y Assoluto [m]	Luminanza Velante [cd/m <sup>2</sup> ]	Incremento di Soglia [%]	Uniformità Longitudinale
Carregg_A_C1	3.75	1.10	4.85	3	C2	5.60	-60.00	2.97	0.34	9.85	
Carregg_A_C2	3.75	4.85	8.60	3	C2	5.60	-60.00	2.97	0.34	9.85	

Scala 1/200





## 4.2 Valori delle Luminanze su: Carregg A 1 UL Oss. 1(x=-60.00;y=2.97;z=1.50)m

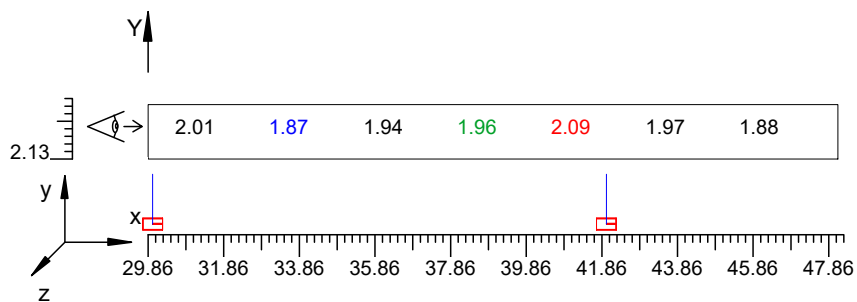
O (x:29.86 y:2.13 z:0.00)	Risultati	Medio	Minimo	Massimo	Min/Medio	Min/Max	Medio/Max
DX:2.49 DY:1.25	Luminanza (L)	1.96 cd/m <sup>2</sup>	1.87 cd/m <sup>2</sup>	2.09 cd/m <sup>2</sup>	0.95	0.89	0.94

Tipo Calcolo

Dir.+Indir.(1 Interriflessioni) + Arredi

Nome Corsia	Largh. Corsia [m] (W)	y1 [m]	y2 [m]	Pt.Calc.Y	Tabella R	Coeff.Rifl. Fattore q0	Osservatore x Assoluto [m]	Osservatore y Assoluto [m]	Luminanza Velante [cd/m <sup>2</sup> ]	Incremento di Soglia [%]	Uniformità Longitudinale
Carregg_A_C1	3.75	1.10	4.85	3	C2	5.60	-60.00	2.97	0.34	9.85	0.89

Scala 1/200



**4.3 Valori delle Luminanze su: Carregg A 2 Oss. 2(x=162.00;y=6.72;z=1.50)m**

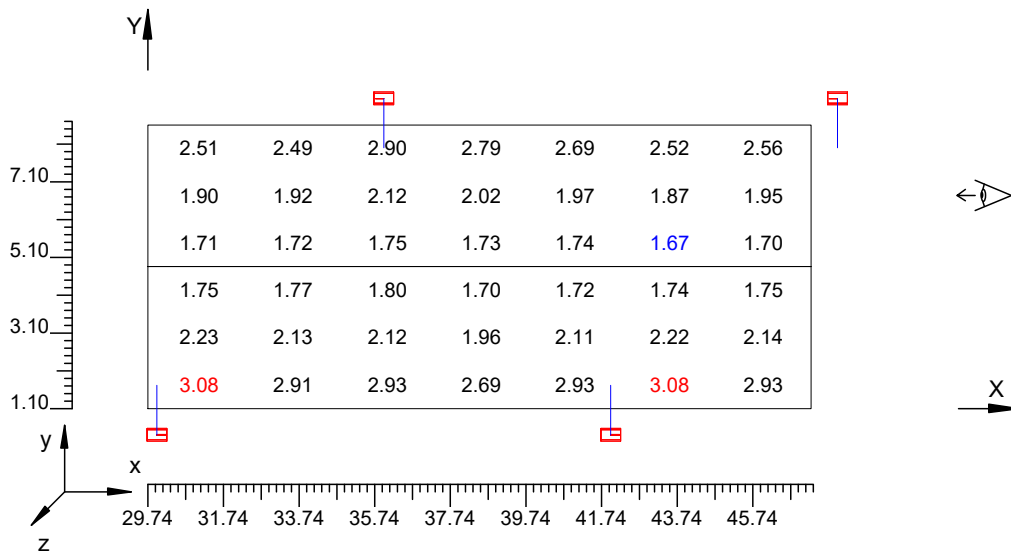
O (x:29.74 y:1.10 z:0.00)	Risultati	Medio	Minimo	Massimo	Min/Medio	Min/Max	Medio/Max
DX:2.49 DY:1.25	Luminanza (L)	2.19 cd/m <sup>2</sup>	1.67 cd/m <sup>2</sup>	3.08 cd/m <sup>2</sup>	0.76	0.54	0.71

Tipo Calcolo

Dir.+Indir.(1 Interriflessioni) + Arredi

Nome Corsia	Largh. Corsia [m] (W)	y1 [m]	y2 [m]	Pt.Calc.Y	Tabella R	Coeff.Rifl. Fattore q0	Osservatore x Assoluto [m]	Osservatore y Assoluto [m]	Luminanza Velante [cd/m <sup>2</sup> ]	Incremento di Soglia [%]	Uniformità Longitudinale
Carregg_A_C1	3.75	1.10	4.85	3	C2	5.60	162.00	6.72	0.34	9.85	
Carregg_A_C2	3.75	4.85	8.60	3	C2	5.60	162.00	6.72	0.34	9.85	

Scala 1/200



**4.4 Valori delle Luminanze su: Carregg A 2 UL Oss. 2(x=162.00;y=6.72;z=1.50)m**

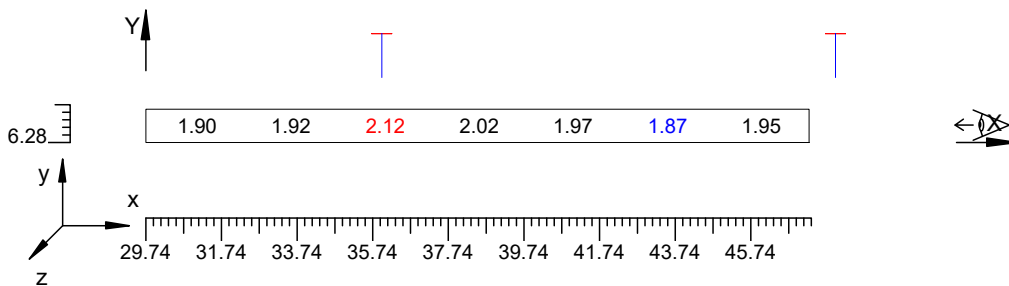
O (x:29.74 y:6.28 z:0.00)	Risultati	Medio	Minimo	Massimo	Min/Medio	Min/Max	Medio/Max
DX:2.49 DY:1.25	Luminanza (L)	1.96 cd/m <sup>2</sup>	1.87 cd/m <sup>2</sup>	2.12 cd/m <sup>2</sup>	0.95	0.88	0.93

Tipo Calcolo

Dir.+Indir.(1 Interriflessioni) + Arredi

Nome Corsia	Largh. Corsia [m] (W)	y1 [m]	y2 [m]	Pt.Calc.Y	Tabella R	Coeff.Rifl. Fattore q0	Osservatore x Assoluto [m]	Osservatore y Assoluto [m]	Luminanza Velante [cd/m <sup>2</sup> ]	Incremento di Soglia [%]	Uniformità Longitudinale
Carregg_A_C2	3.75	4.85	8.60	3	C2	5.60	162.00	6.72	0.34	9.85	0.88

Scala 1/200



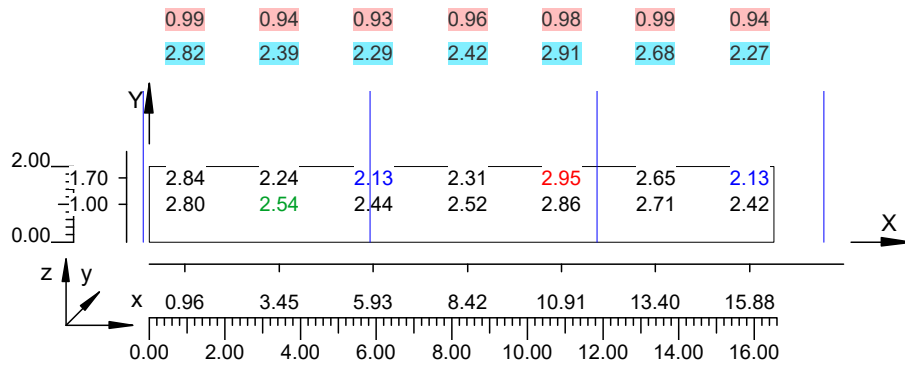
**4.5 Valori delle Luminanze su: Parete Destra 1 (x=-60.00;y=2.97;z=1.50)m ---> (x=30.00;y=2.97;z=0.00).**

O (x:30.14 y:0.01 z:0.00)	Risultati	Medio	Minimo	Massimo	Min/Medio	Min/Max	Medio/Max
DX:2.49 DY:0.70	Luminanza (L)	2.54 cd/m <sup>2</sup>	2.13 cd/m <sup>2</sup>	2.95 cd/m <sup>2</sup>	0.84	0.72	0.86

Tipo Calcolo

Dir.+Indir.(1 Interriflessioni) + Arredi

Scala 1/200



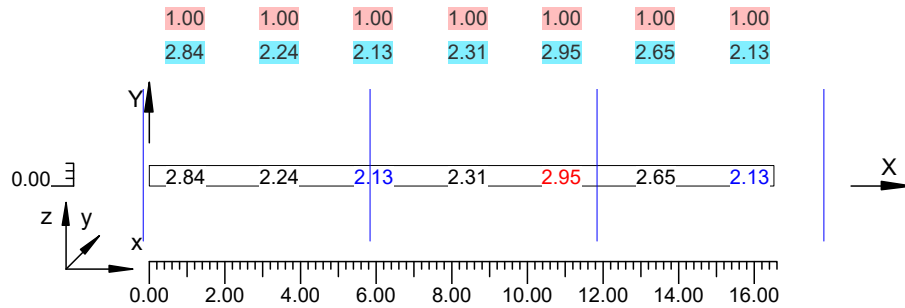
**4.6 Valori delle Luminanze su: Parete Destra 1 UL (x=-60.00;y=2.97;z=1.50)m ---> (x=30.00;y=2.97;:**

O (x:30.14 y:0.01 z:1.48)	Risultati	Medio	Minimo	Massimo	Min/Medio	Min/Max	Medio/Max
DX:2.49 DY:0.70	Luminanza (L)	2.46 cd/m <sup>2</sup>	2.13 cd/m <sup>2</sup>	2.95 cd/m <sup>2</sup>	0.86	0.72	0.83

Tipo Calcolo

Dir.+Indir.(1 Interriflessioni) + Arredi

Scala 1/200



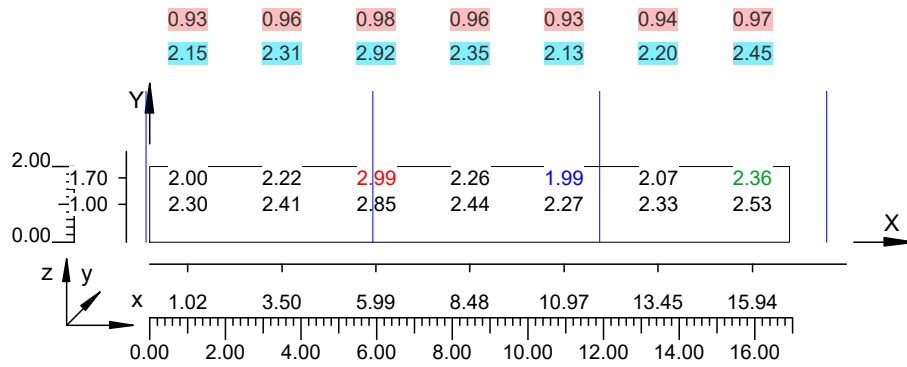
**4.7 Valori delle Luminanze su: Parete Sinistra 1 (x=-60.00;y=2.97;z=1.50)m ---> (x=30.00;y=2.97;z=0**

O (x:30.08 y:9.69 z:0.00)	Risultati	Medio	Minimo	Massimo	Min/Medio	Min/Max	Medio/Max
DX:2.49 DY:0.70	Luminanza (L)	2.36 cd/m <sup>2</sup>	1.99 cd/m <sup>2</sup>	2.99 cd/m <sup>2</sup>	0.84	0.67	0.79

Tipo Calcolo

Dir.+Indir.(1 Interriflessioni) + Arredi

Scala 1/200



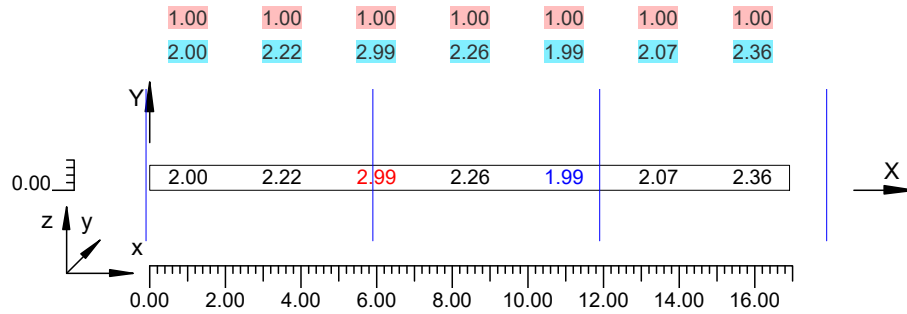
**4.8 Valori delle Luminanze su: Parete Sinistra UL (x=-60.00;y=2.97;z=1.50)m ---> (x=30.00;y=2.97;z=1.50)m**

O (x:30.08 y:9.69 z:1.36)	Risultati	Medio	Minimo	Massimo	Min/Medio	Min/Max	Medio/Max
DX:2.49 DY:0.70	Luminanza (L)	2.27 cd/m <sup>2</sup>	1.99 cd/m <sup>2</sup>	2.99 cd/m <sup>2</sup>	0.88	0.67	0.76

Tipo Calcolo

Dir.+Indir.(1 Interriflessioni) + Arredi

Scala 1/200



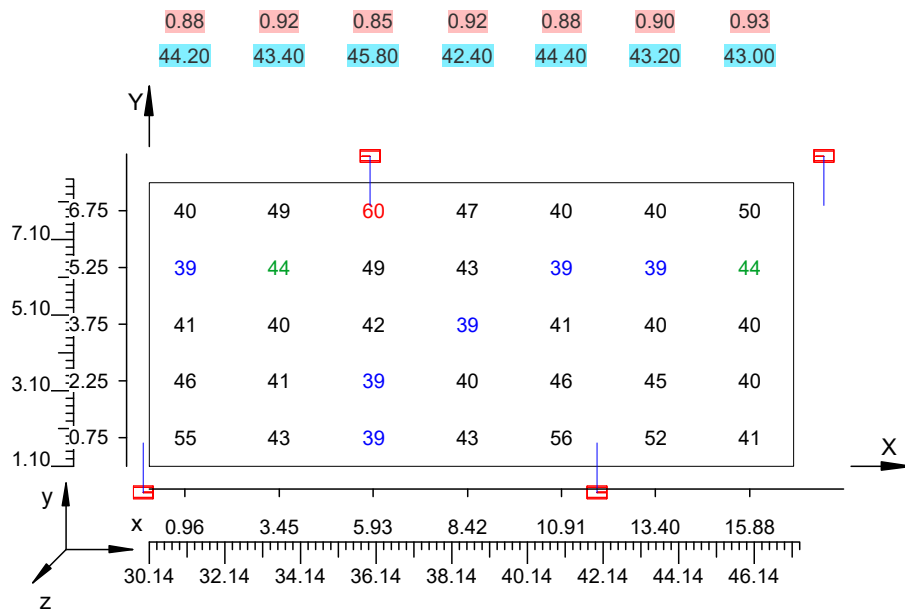
### 4.9 Valori di Illuminamento su: Carregg A 3

O (x:30.14 y:1.10 z:0.00)	Risultati	Medio	Minimo	Massimo	Min/Medio	Min/Max	Medio/Max
DX:2.49 DY:1.50	Illuminamento Orizzontale (E)	44 lux	39 lux	60 lux	0.89	0.65	0.73

Tipo Calcolo

Dir.+Indir.(1 Interriflessioni) + Arredi

Scala 1/200





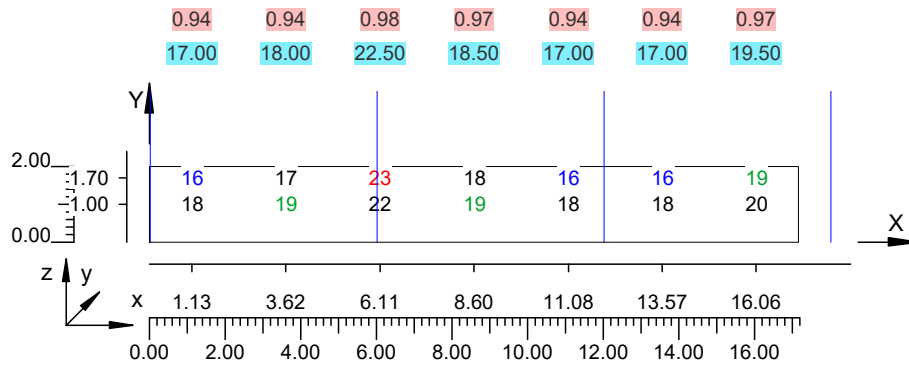
**4.10 Valori di Illuminamento su: Parete Sinistra 2**

O (x:29.97 y:9.69 z:0.00)	Risultati	Medio	Minimo	Massimo	Min/Medio	Min/Max	Medio/Max
DX:2.49 DY:0.70	Illuminamento Orizzontale (E)	19 lux	16 lux	23 lux	0.84	0.67	0.79

Tipo Calcolo

Dir.+Indir.(1 Interriflessioni) + Arredi

Scala 1/200



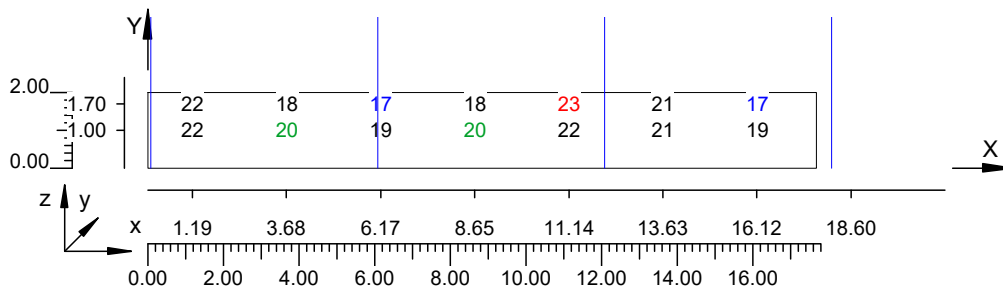
**4.11 Valori di Illuminamento su: Parete Destra 2**

O (x:29.91 y:0.01 z:0.00)	Risultati	Medio	Minimo	Massimo	Min/Medio	Min/Max	Medio/Max
DX:2.49 DY:0.70	Illuminamento Orizzontale (E)	20 lux	17 lux	23 lux	0.84	0.72	0.86

Tipo Calcolo

Dir.+Indir.(1 Interriflessioni) + Arredi

Scala 1/200



<b>Informazioni Generali</b>	<b>1</b>
<b>1. Dati Riepilogativi Progetto</b>	
1.1 Informazioni Area	2
<b>2. Viste Progetto</b>	
2.1 Vista 2D in Pianta	3
2.2 Vista Laterale	4
2.3 Vista Frontale	5
<b>3. Dati Riepilogativi Apparecchi</b>	
3.1 Informazioni Apparecchi/Rilievi	6
3.2 Informazioni Lampade	6
<b>4. Tabella Risultati</b>	
4.1 Valori delle Luminanze su: Carregg_A_1 Oss. 1(x=-60.00;y=2.97;z=1.50)m	7
4.2 Valori delle Luminanze su: Carregg_A_1_UL Oss. 1(x=-60.00;y=2.97;z=1.50)m	8
4.3 Valori delle Luminanze su: Carregg_A_2 Oss. 2(x=162.00;y=6.72;z=1.50)m	9
4.4 Valori delle Luminanze su: Carregg_A_2_UL Oss. 2(x=162.00;y=6.72;z=1.50)m	10
4.5 Valori delle Luminanze su: Parete_Destra_1 (x=-60.00;y=2.97;z=1.50)m ---> (x=30.00;y=2.97;z=0.00)m	11
4.6 Valori delle Luminanze su: Parete_Destra_1_UL (x=-60.00;y=2.97;z=1.50)m ---> (x=30.00;y=2.97;z=0.00)m	12
4.7 Valori delle Luminanze su: Parete_Sinistra_1 (x=-60.00;y=2.97;z=1.50)m ---> (x=30.00;y=2.97;z=0.00)m	13
4.8 Valori delle Luminanze su: Parete_Sinistra_UL (x=-60.00;y=2.97;z=1.50)m ---> (x=30.00;y=2.97;z=0.00)m	14
4.9 Valori di Illuminamento su: Carregg_A_3	15
4.10 Valori di Illuminamento su: Parete_Sinistra_2	16
4.11 Valori di Illuminamento su: Parete_Destra_2	17

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# GALLERIA ELEVAZ 1

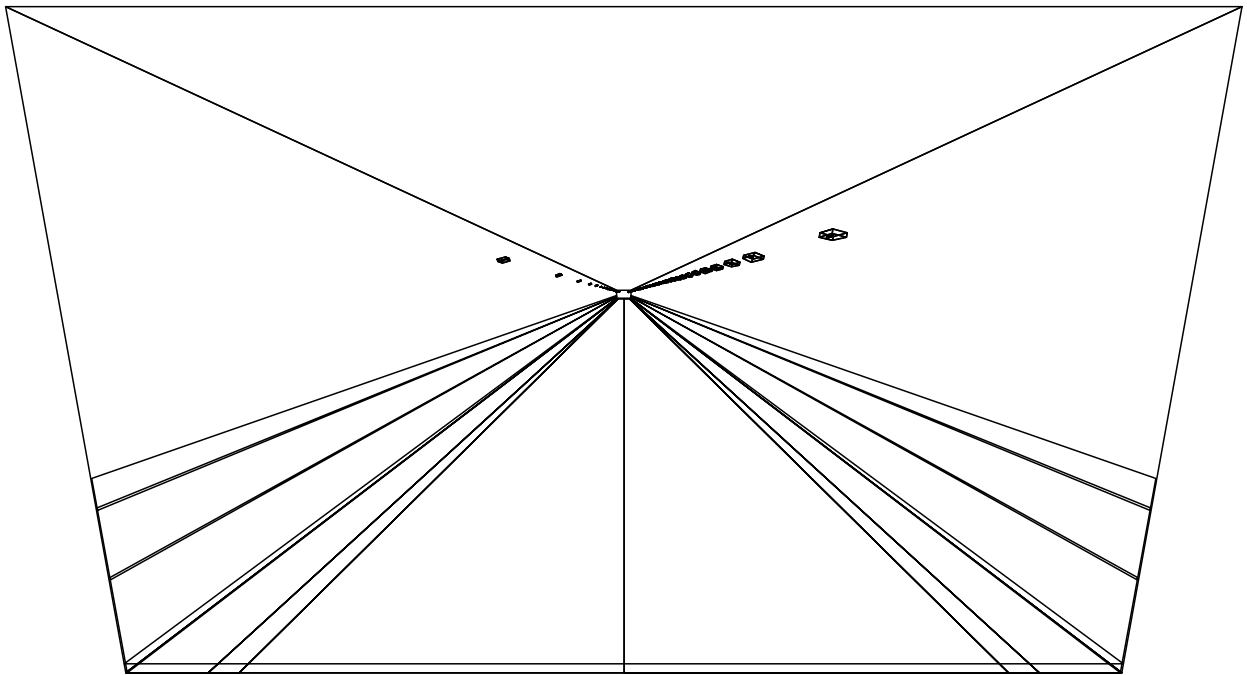
Note Installazione:

Cliente:

Codice Progetto: PRJ10715\_REV\_0\_ELEVAZ 1\_RINF

Data: 07/10/2016

Note



Lighting Designer:  
Indirizzo:  
Tel.-Fax

Ing. Maurizio Cambiaso  
Via B.Liguria 1/9 sc.A  
0108690286

Avvertenze:

## 1.1 Informazioni Area

### Dati Strada

Zona	Tipo Zona	Corsia	Senso di marcia	Larghezza [m] (W)	y1 [m]	y2 [m]	Pt.Calc.Y (E)	Pt.Calc.Y (L)	Alt. Zona [m] (HC)	Colore	Tabella R	Coeff.Rif. Fattore q0
Marc_A	Pista Ciclo/Pedonal	Marc_A_C1	--->	0.80	0.00	0.80	3	3	0.00	RGB=219,54,36		30.00
Secondari:	Secondaria	Generica	--->	0.30	0.80	1.10	3	3	0.00	RGB=0,255,0	C2	5.60
Carregg_A	Carrabile			7.50	1.10	8.60	5		0.00	RGB=126,126,126	C2	5.60
		Carregg_A_C1	--->	3.75	1.10	4.85		3				
		Carregg_A_C2	<---	3.75	4.85	8.60		3				
Secondari:	Secondaria	Generica	<---	0.30	8.60	8.90	3	3	0.00	RGB=0,255,0	C2	5.60
Marc_B	Pista Ciclo/Pedonal	Marc_B_C1	<---	0.80	8.90	9.70	3	3	0.00	RGB=219,54,36		30.00

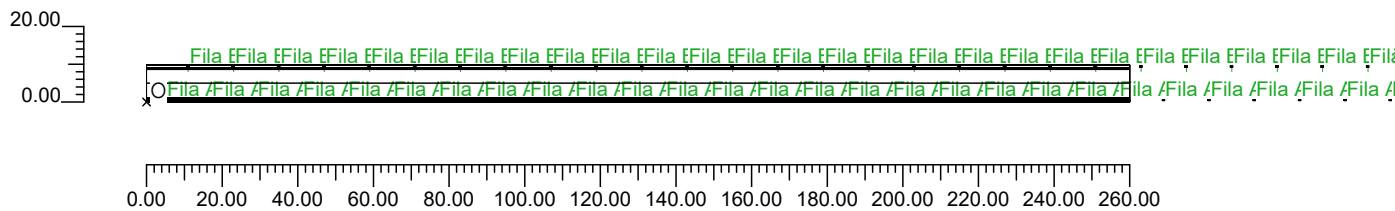
Pareti = 40% diffusive

### Dati Installazione Apparecchi

Nome Fila	1° Palo x [m] (XP)	1° Palo y [m] (YP)	Altez.App. [m] (H)	Num. Pali	Interd. [m] (D)	Sbraccio [m] (L)	Ang.Incl. [°] (RY)	Rot.Sbraccio [°] (RZ)	Ang.Incl.Lat. [°] (RX)	Fatt.Manut. [%]	Codice Apparecchio	Flusso [lm]	Rif.
1 RINF	10.00	0.40	4.90	16	2.60	0.00	0	180	-20	80.00	54 LED	42780	A
2 RINF	53.10	0.40	4.90	4	4.10	0.00	0	180	-20	80.00	54 LED	42780	A
3 RINF	69.70	0.40	4.90	3	4.30	0.00	0	180	-20	80.00	36 LED	28520	B
4 RINF	82.60	0.40	4.90	5	4.30	0.00	0	180	-20	80.00	18 LED	14260	C
5 RINF	106.30	0.40	4.90	5	6.50	0.00	0	180	-20	80.00	18 LED	14260	C
6 RINF	138.80	0.40	4.90	6	6.50	0.00	0	180	-20	80.00	9 LED	7130	D
7 RINF	172.80	0.40	4.90	7	6.50	0.00	15	90	0	80.00	20 LED OTT.A	4420	E
8 RINF	223.80	0.40	4.90	4	12.00	0.00	15	90	0	80.00	20 LED OTT.A	4420	E
Fila A	5.00	0.40	4.90	31	12.00	0.00	15	90	0	80.00	20 LED OTT.A	4420	E
Fila B	11.00	9.30	4.90	30	12.00	0.00	15	270	0	80.00	20 LED OTT.A	4420	E

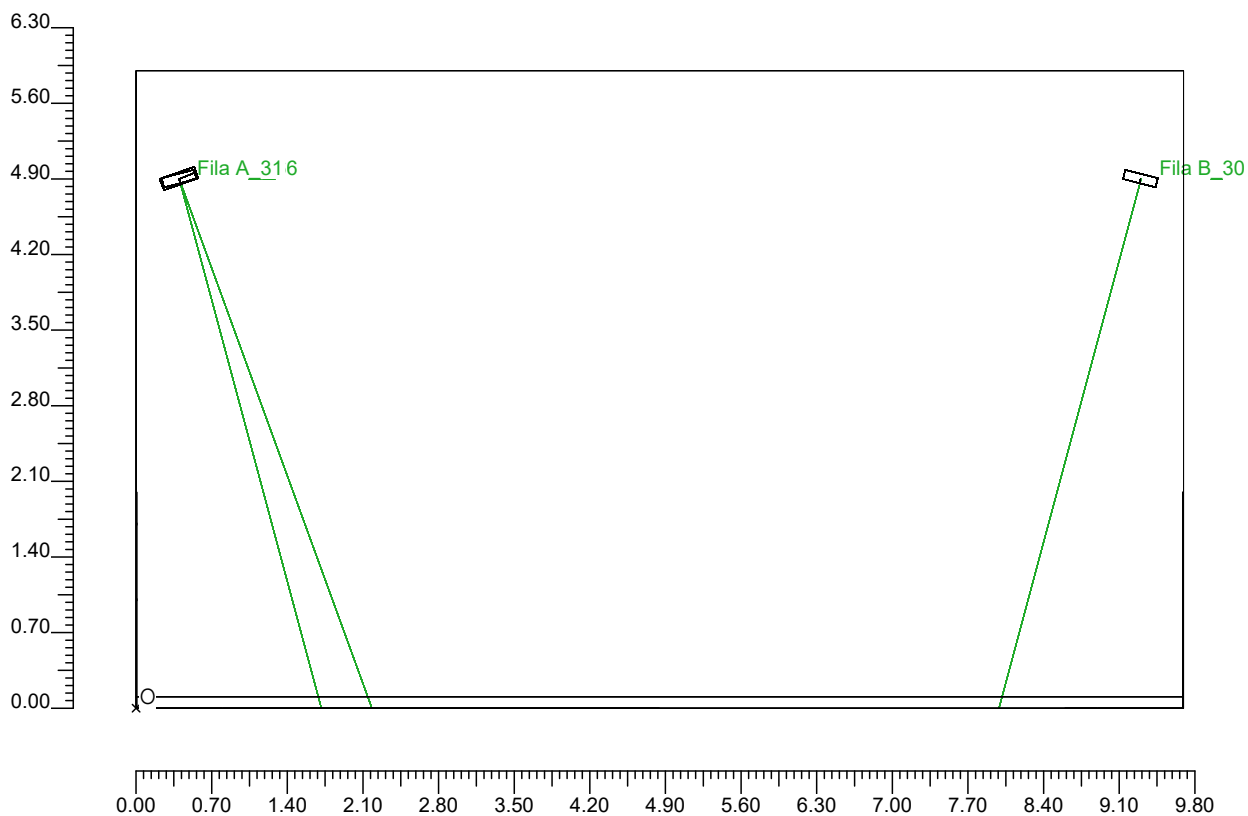
## 2.1 Vista 2D in Pianta

Scala 1/2000



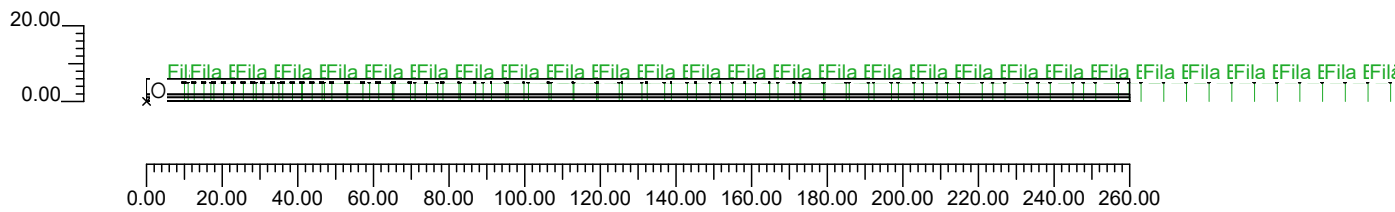
## 2.2 Vista Laterale

Scala 1/70



### 2.3 Vista Frontale

Scala 1/2000





### 3.1 Informazioni Apparecchi/Rilievi

Rif.	Linea	Nome Apparecchio (Nome Rilievo)	Codice Apparecchio (Codice rilievo)	Apparecchi n.	Rif.Lamp.	Lampade n.
A	54	54 LED	54 LED	20	LMP-A	1
B	36	36 LED	36 LED	3	LMP-B	1
C	18	18 LED	18 LED	10	LMP-C	1
D	9	9 LED	9 LED	6	LMP-D	1
E	20 ott. A	20led 700mA (ott. A)	20 LED OTT.A)	72	LMP-E	1

### 3.2 Informazioni Lampade

Rif.Lamp.	Tipo	Codice	Flusso lm	Potenza W	Colore K	n.
LMP-A	LED	54 LED	42780	448	4000	-
LMP-B	LED	36 LED	28520	298	4000	-
LMP-C	LED	18 LED	14260	149	4000	-
LMP-D	LED	9 LED	7130	75	4000	-
LMP-E	LED	20led A	4420	45	4000	-

### 3.3 Tabella Riepilogativa Apparecchi

Rif.	App.	On	Posizione Apparecchi X[m] Y[m] Z[m]	Rotazione Apparecchi X° Y° Z°	Codice Apparecchio	Coeff. Mant.	Codice Lampada	Flusso lm
A	1	X	10.00;0.40;4.90	0.0;-20.0;90.0	54 LED	0.80	54 LED	1*42780
	2	X	12.60;0.40;4.90	0.0;-20.0;90.0		0.80		
	3	X	15.20;0.40;4.90	0.0;-20.0;90.0		0.80		
	4	X	17.80;0.40;4.90	0.0;-20.0;90.0		0.80		
	5	X	20.40;0.40;4.90	0.0;-20.0;90.0		0.80		
	6	X	23.00;0.40;4.90	0.0;-20.0;90.0		0.80		
	7	X	25.60;0.40;4.90	0.0;-20.0;90.0		0.80		
	8	X	28.20;0.40;4.90	0.0;-20.0;90.0		0.80		
	9	X	30.80;0.40;4.90	0.0;-20.0;90.0		0.80		
	10	X	33.40;0.40;4.90	0.0;-20.0;90.0		0.80		
	11	X	36.00;0.40;4.90	0.0;-20.0;90.0		0.80		
	12	X	38.60;0.40;4.90	0.0;-20.0;90.0		0.80		
	13	X	41.20;0.40;4.90	0.0;-20.0;90.0		0.80		
	14	X	43.80;0.40;4.90	0.0;-20.0;90.0		0.80		
	15	X	46.40;0.40;4.90	0.0;-20.0;90.0		0.80		
	16	X	49.00;0.40;4.90	0.0;-20.0;90.0		0.80		
	17	X	53.10;0.40;4.90	0.0;-20.0;90.0		0.80		
	18	X	57.20;0.40;4.90	0.0;-20.0;90.0		0.80		
	19	X	61.30;0.40;4.90	0.0;-20.0;90.0		0.80		
	20	X	65.40;0.40;4.90	0.0;-20.0;90.0		0.80		
B	1	X	69.70;0.40;4.90	0.0;-20.0;90.0	36 LED	0.80	36 LED	1*28520
	2	X	74.00;0.40;4.90	0.0;-20.0;90.0		0.80		
	3	X	78.30;0.40;4.90	0.0;-20.0;90.0		0.80		
C	1	X	82.60;0.40;4.90	0.0;-20.0;90.0	18 LED	0.80	18 LED	1*14260
	2	X	86.90;0.40;4.90	0.0;-20.0;90.0		0.80		
	3	X	91.20;0.40;4.90	0.0;-20.0;90.0		0.80		
	4	X	95.50;0.40;4.90	0.0;-20.0;90.0		0.80		
	5	X	99.80;0.40;4.90	0.0;-20.0;90.0		0.80		
	6	X	106.30;0.40;4.90	0.0;-20.0;90.0		0.80		
	7	X	112.80;0.40;4.90	0.0;-20.0;90.0		0.80		
	8	X	119.30;0.40;4.90	0.0;-20.0;90.0		0.80		

Rif.	App.	On	Posizione Apparecchi X[m] Y[m] Z[m]	Rotazione Apparecchi X° Y° Z°	Codice Apparecchio	Coeff. Mant.	Codice Lampada	Flusso lm
C	9	X	125.80;0.40;4.90	0.0;-20.0;90.0	18 LED	0.80	18 LED	1*14260
	10	X	132.30;0.40;4.90	0.0;-20.0;90.0		0.80		
D	1	X	138.80;0.40;4.90	0.0;-20.0;90.0	9 LED	0.80	9 LED	1*7130
	2	X	145.30;0.40;4.90	0.0;-20.0;90.0		0.80		
	3	X	151.80;0.40;4.90	0.0;-20.0;90.0		0.80		
	4	X	158.30;0.40;4.90	0.0;-20.0;90.0		0.80		
	5	X	164.80;0.40;4.90	0.0;-20.0;90.0		0.80		
	6	X	171.30;0.40;4.90	0.0;-20.0;90.0		0.80		
E	1	X	172.80;0.40;4.90	15.0;0.0;0.0	20 LED OTT.A	0.80	20led A	1*4420
	2	X	179.30;0.40;4.90	15.0;0.0;0.0		0.80		
	3	X	185.80;0.40;4.90	15.0;0.0;0.0		0.80		
	4	X	192.30;0.40;4.90	15.0;0.0;0.0		0.80		
	5	X	198.80;0.40;4.90	15.0;0.0;0.0		0.80		
	6	X	205.30;0.40;4.90	15.0;0.0;0.0		0.80		
	7	X	211.80;0.40;4.90	15.0;0.0;0.0		0.80		
	8	X	223.80;0.40;4.90	15.0;0.0;0.0		0.80		
	9	X	235.80;0.40;4.90	15.0;0.0;0.0		0.80		
	10	X	247.80;0.40;4.90	15.0;0.0;0.0		0.80		
	11	X	259.80;0.40;4.90	15.0;0.0;0.0		0.80		
	12	X	5.00;0.40;4.90	15.0;0.0;0.0		0.80		
	13	X	17.00;0.40;4.90	15.0;0.0;0.0		0.80		
	14	X	29.00;0.40;4.90	15.0;0.0;0.0		0.80		
	15	X	41.00;0.40;4.90	15.0;0.0;0.0		0.80		
	16	X	53.00;0.40;4.90	15.0;0.0;0.0		0.80		
	17	X	65.00;0.40;4.90	15.0;0.0;0.0		0.80		
	18	X	77.00;0.40;4.90	15.0;0.0;0.0		0.80		
	19	X	89.00;0.40;4.90	15.0;0.0;0.0		0.80		
	20	X	101.00;0.40;4.90	15.0;0.0;0.0		0.80		
	21	X	113.00;0.40;4.90	15.0;0.0;0.0		0.80		
	22	X	125.00;0.40;4.90	15.0;0.0;0.0		0.80		
	23	X	137.00;0.40;4.90	15.0;0.0;0.0		0.80		
	24	X	149.00;0.40;4.90	15.0;0.0;0.0		0.80		
	25	X	161.00;0.40;4.90	15.0;0.0;0.0		0.80		
	26	X	173.00;0.40;4.90	15.0;0.0;0.0		0.80		
	27	X	185.00;0.40;4.90	15.0;0.0;0.0		0.80		
	28	X	197.00;0.40;4.90	15.0;0.0;0.0		0.80		
	29	X	209.00;0.40;4.90	15.0;0.0;0.0		0.80		
	30	X	221.00;0.40;4.90	15.0;0.0;0.0		0.80		
	31	X	233.00;0.40;4.90	15.0;0.0;0.0		0.80		
	32	X	245.00;0.40;4.90	15.0;0.0;0.0		0.80		
	33	X	257.00;0.40;4.90	15.0;0.0;0.0		0.80		
	34	X	269.00;0.40;4.90	15.0;0.0;0.0		0.80		
	35	X	281.00;0.40;4.90	15.0;0.0;0.0		0.80		
	36	X	293.00;0.40;4.90	15.0;0.0;0.0		0.80		
	37	X	305.00;0.40;4.90	15.0;0.0;0.0		0.80		
	38	X	317.00;0.40;4.90	15.0;0.0;0.0		0.80		
	39	X	329.00;0.40;4.90	15.0;0.0;0.0		0.80		
	40	X	341.00;0.40;4.90	15.0;0.0;0.0		0.80		
	41	X	353.00;0.40;4.90	15.0;0.0;0.0		0.80		
	42	X	365.00;0.40;4.90	15.0;0.0;0.0		0.80		
	43	X	11.00;9.30;4.90	15.0;0.0;180.0		0.80		
	44	X	23.00;9.30;4.90	15.0;0.0;180.0		0.80		
	45	X	35.00;9.30;4.90	15.0;0.0;180.0		0.80		
	46	X	47.00;9.30;4.90	15.0;0.0;180.0		0.80		
	47	X	59.00;9.30;4.90	15.0;0.0;180.0		0.80		
	48	X	71.00;9.30;4.90	15.0;0.0;180.0		0.80		
	49	X	83.00;9.30;4.90	15.0;0.0;180.0		0.80		
	50	X	95.00;9.30;4.90	15.0;0.0;180.0		0.80		
	51	X	107.00;9.30;4.90	15.0;0.0;180.0		0.80		
	52	X	119.00;9.30;4.90	15.0;0.0;180.0		0.80		
	53	X	131.00;9.30;4.90	15.0;0.0;180.0		0.80		
	54	X	143.00;9.30;4.90	15.0;0.0;180.0		0.80		
	55	X	155.00;9.30;4.90	15.0;0.0;180.0		0.80		
	56	X	167.00;9.30;4.90	15.0;0.0;180.0		0.80		
	57	X	179.00;9.30;4.90	15.0;0.0;180.0		0.80		
	58	X	191.00;9.30;4.90	15.0;0.0;180.0		0.80		
	59	X	203.00;9.30;4.90	15.0;0.0;180.0		0.80		
	60	X	215.00;9.30;4.90	15.0;0.0;180.0		0.80		
	61	X	227.00;9.30;4.90	15.0;0.0;180.0		0.80		
	62	X	239.00;9.30;4.90	15.0;0.0;180.0		0.80		
	63	X	251.00;9.30;4.90	15.0;0.0;180.0		0.80		

Rif.	App.	On	Posizione Apparecchi X[m] Y[m] Z[m]	Rotazione Apparecchi X° Y° Z°	Codice Apparecchio	Coeff. Mant.	Codice Lampada	Flusso lm
E	64	X	263.00;9.30;4.90	15.0;0.0;180.0	20 LED OTT.A	0.80	20led A	1*4420
	65	X	275.00;9.30;4.90	15.0;0.0;180.0		0.80		
	66	X	287.00;9.30;4.90	15.0;0.0;180.0		0.80		
	67	X	299.00;9.30;4.90	15.0;0.0;180.0		0.80		
	68	X	311.00;9.30;4.90	15.0;0.0;180.0		0.80		
	69	X	323.00;9.30;4.90	15.0;0.0;180.0		0.80		
	70	X	335.00;9.30;4.90	15.0;0.0;180.0		0.80		
	71	X	347.00;9.30;4.90	15.0;0.0;180.0		0.80		
	72	X	359.00;9.30;4.90	15.0;0.0;180.0		0.80		

### 3.4 Tabella Riepilogativa Puntamenti

Struttura	Fila	Colonna	Rif. 2D	On	Posizione Apparecchi X[m] Y[m] Z[m]	Rotazione Apparecchi X° Y° Z°	Puntamenti X[m] Y[m] Z[m]	R.Asse °	Coeff. Mant.	Rif.
			1 RINF_1	X	10.00;0.40;4.90	0.0;-20.0;90.0	10.00;2.18;-0.00	0	0.80	A
			1 RINF_2	X	12.60;0.40;4.90	0.0;-20.0;90.0	12.60;2.18;-0.00	0	0.80	A
			1 RINF_3	X	15.20;0.40;4.90	0.0;-20.0;90.0	15.20;2.18;-0.00	0	0.80	A
			1 RINF_4	X	17.80;0.40;4.90	0.0;-20.0;90.0	17.80;2.18;-0.00	0	0.80	A
			1 RINF_5	X	20.40;0.40;4.90	0.0;-20.0;90.0	20.40;2.18;-0.00	0	0.80	A
			1 RINF_6	X	23.00;0.40;4.90	0.0;-20.0;90.0	23.00;2.18;-0.00	0	0.80	A
			1 RINF_7	X	25.60;0.40;4.90	0.0;-20.0;90.0	25.60;2.18;-0.00	0	0.80	A
			1 RINF_8	X	28.20;0.40;4.90	0.0;-20.0;90.0	28.20;2.18;-0.00	0	0.80	A
			1 RINF_9	X	30.80;0.40;4.90	0.0;-20.0;90.0	30.80;2.18;-0.00	0	0.80	A
			1 RINF_10	X	33.40;0.40;4.90	0.0;-20.0;90.0	33.40;2.18;-0.00	0	0.80	A
			1 RINF_11	X	36.00;0.40;4.90	0.0;-20.0;90.0	36.00;2.18;-0.00	0	0.80	A
			1 RINF_12	X	38.60;0.40;4.90	0.0;-20.0;90.0	38.60;2.18;-0.00	0	0.80	A
			1 RINF_13	X	41.20;0.40;4.90	0.0;-20.0;90.0	41.20;2.18;-0.00	0	0.80	A
			1 RINF_14	X	43.80;0.40;4.90	0.0;-20.0;90.0	43.80;2.18;-0.00	0	0.80	A
			1 RINF_15	X	46.40;0.40;4.90	0.0;-20.0;90.0	46.40;2.18;-0.00	0	0.80	A
			1 RINF_16	X	49.00;0.40;4.90	0.0;-20.0;90.0	49.00;2.18;-0.00	0	0.80	A
			2 RINF_1	X	53.10;0.40;4.90	0.0;-20.0;90.0	53.10;2.18;-0.00	0	0.80	A
			2 RINF_2	X	57.20;0.40;4.90	0.0;-20.0;90.0	57.20;2.18;-0.00	0	0.80	A
			2 RINF_3	X	61.30;0.40;4.90	0.0;-20.0;90.0	61.30;2.18;-0.00	0	0.80	A
			2 RINF_4	X	65.40;0.40;4.90	0.0;-20.0;90.0	65.40;2.18;-0.00	0	0.80	A
			3 RINF_1	X	69.70;0.40;4.90	0.0;-20.0;90.0	69.70;2.18;-0.00	0	0.80	B
			3 RINF_2	X	74.00;0.40;4.90	0.0;-20.0;90.0	74.00;2.18;-0.00	0	0.80	B
			3 RINF_3	X	78.30;0.40;4.90	0.0;-20.0;90.0	78.30;2.18;-0.00	0	0.80	B
			4 RINF_1	X	82.60;0.40;4.90	0.0;-20.0;90.0	82.60;2.18;-0.00	0	0.80	C
			4 RINF_2	X	86.90;0.40;4.90	0.0;-20.0;90.0	86.90;2.18;-0.00	0	0.80	C
			4 RINF_3	X	91.20;0.40;4.90	0.0;-20.0;90.0	91.20;2.18;-0.00	0	0.80	C
			4 RINF_4	X	95.50;0.40;4.90	0.0;-20.0;90.0	95.50;2.18;-0.00	0	0.80	C
			4 RINF_5	X	99.80;0.40;4.90	0.0;-20.0;90.0	99.80;2.18;-0.00	0	0.80	C
			5 RINF_1	X	106.30;0.40;4.90	0.0;-20.0;90.0	106.30;2.18;-0.00	0	0.80	C
			5 RINF_2	X	112.80;0.40;4.90	0.0;-20.0;90.0	112.80;2.18;-0.00	0	0.80	C
			5 RINF_3	X	119.30;0.40;4.90	0.0;-20.0;90.0	119.30;2.18;-0.00	0	0.80	C
			5 RINF_4	X	125.80;0.40;4.90	0.0;-20.0;90.0	125.80;2.18;-0.00	0	0.80	C
			5 RINF_5	X	132.30;0.40;4.90	0.0;-20.0;90.0	132.30;2.18;-0.00	0	0.80	C
			6 RINF_1	X	138.80;0.40;4.90	0.0;-20.0;90.0	138.80;2.18;-0.00	0	0.80	D
			6 RINF_2	X	145.30;0.40;4.90	0.0;-20.0;90.0	145.30;2.18;-0.00	0	0.80	D
			6 RINF_3	X	151.80;0.40;4.90	0.0;-20.0;90.0	151.80;2.18;-0.00	0	0.80	D
			6 RINF_4	X	158.30;0.40;4.90	0.0;-20.0;90.0	158.30;2.18;-0.00	0	0.80	D
			6 RINF_5	X	164.80;0.40;4.90	0.0;-20.0;90.0	164.80;2.18;-0.00	0	0.80	D
			6 RINF_6	X	171.30;0.40;4.90	0.0;-20.0;90.0	171.30;2.18;-0.00	0	0.80	D
			7 RINF_1	X	172.80;0.40;4.90	15.0;0.0;0.0	172.80;1.71;-0.00	-90	0.80	E
			7 RINF_2	X	179.30;0.40;4.90	15.0;0.0;0.0	179.30;1.71;-0.00	-90	0.80	E
			7 RINF_3	X	185.80;0.40;4.90	15.0;0.0;0.0	185.80;1.71;-0.00	-90	0.80	E
			7 RINF_4	X	192.30;0.40;4.90	15.0;0.0;0.0	192.30;1.71;-0.00	-90	0.80	E
			7 RINF_5	X	198.80;0.40;4.90	15.0;0.0;0.0	198.80;1.71;-0.00	-90	0.80	E
			7 RINF_6	X	205.30;0.40;4.90	15.0;0.0;0.0	205.30;1.71;-0.00	-90	0.80	E
			7 RINF_7	X	211.80;0.40;4.90	15.0;0.0;0.0	211.80;1.71;-0.00	-90	0.80	E
			8 RINF_1	X	223.80;0.40;4.90	15.0;0.0;0.0	223.80;1.71;-0.00	-90	0.80	E
			8 RINF_2	X	235.80;0.40;4.90	15.0;0.0;0.0	235.80;1.71;-0.00	-90	0.80	E
			8 RINF_3	X	247.80;0.40;4.90	15.0;0.0;0.0	247.80;1.71;-0.00	-90	0.80	E
			8 RINF_4	X	259.80;0.40;4.90	15.0;0.0;0.0	259.80;1.71;-0.00	-90	0.80	E
			Fila A_1	X	5.00;0.40;4.90	15.0;0.0;0.0	5.00;1.71;-0.00	-90	0.80	E
			Fila A_2	X	17.00;0.40;4.90	15.0;0.0;0.0	17.00;1.71;-0.00	-90	0.80	E

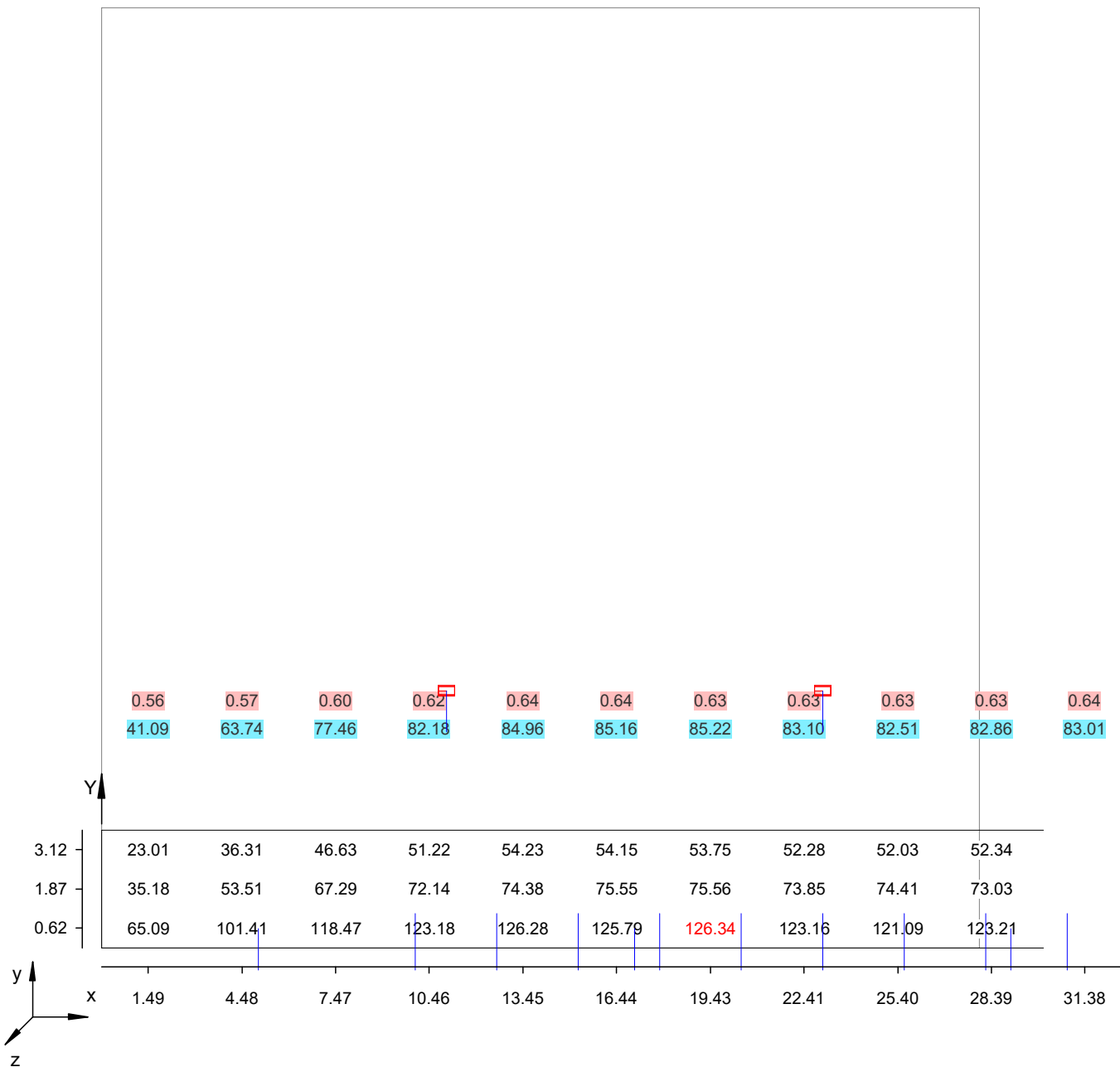
Struttura	Fila	Colonna	Rif. 2D	On	Posizione Apparecchi			Rotazione Apparecchi			Puntamenti			R.Asse °	Coeff. Mant.	Rif.
					X[m]	Y[m]	Z[m]	X°	Y°	Z°	X[m]	Y[m]	Z[m]			
			Fila A_3	X	29.00	0.40	4.90	15.0	0.0	0.0	29.00	1.71	-0.00	-90	0.80	E
			Fila A_4	X	41.00	0.40	4.90	15.0	0.0	0.0	41.00	1.71	-0.00	-90	0.80	E
			Fila A_5	X	53.00	0.40	4.90	15.0	0.0	0.0	53.00	1.71	-0.00	-90	0.80	E
			Fila A_6	X	65.00	0.40	4.90	15.0	0.0	0.0	65.00	1.71	-0.00	-90	0.80	E
			Fila A_7	X	77.00	0.40	4.90	15.0	0.0	0.0	77.00	1.71	-0.00	-90	0.80	E
			Fila A_8	X	89.00	0.40	4.90	15.0	0.0	0.0	89.00	1.71	-0.00	-90	0.80	E
			Fila A_9	X	101.00	0.40	4.90	15.0	0.0	0.0	101.00	1.71	-0.00	-90	0.80	E
			Fila A_10	X	113.00	0.40	4.90	15.0	0.0	0.0	113.00	1.71	-0.00	-90	0.80	E
			Fila A_11	X	125.00	0.40	4.90	15.0	0.0	0.0	125.00	1.71	-0.00	-90	0.80	E
			Fila A_12	X	137.00	0.40	4.90	15.0	0.0	0.0	137.00	1.71	-0.00	-90	0.80	E
			Fila A_13	X	149.00	0.40	4.90	15.0	0.0	0.0	149.00	1.71	-0.00	-90	0.80	E
			Fila A_14	X	161.00	0.40	4.90	15.0	0.0	0.0	161.00	1.71	-0.00	-90	0.80	E
			Fila A_15	X	173.00	0.40	4.90	15.0	0.0	0.0	173.00	1.71	-0.00	-90	0.80	E
			Fila A_16	X	185.00	0.40	4.90	15.0	0.0	0.0	185.00	1.71	-0.00	-90	0.80	E
			Fila A_17	X	197.00	0.40	4.90	15.0	0.0	0.0	197.00	1.71	-0.00	-90	0.80	E
			Fila A_18	X	209.00	0.40	4.90	15.0	0.0	0.0	209.00	1.71	-0.00	-90	0.80	E
			Fila A_19	X	221.00	0.40	4.90	15.0	0.0	0.0	221.00	1.71	-0.00	-90	0.80	E
			Fila A_20	X	233.00	0.40	4.90	15.0	0.0	0.0	233.00	1.71	-0.00	-90	0.80	E
			Fila A_21	X	245.00	0.40	4.90	15.0	0.0	0.0	245.00	1.71	-0.00	-90	0.80	E
			Fila A_22	X	257.00	0.40	4.90	15.0	0.0	0.0	257.00	1.71	-0.00	-90	0.80	E
			Fila A_23	X	269.00	0.40	4.90	15.0	0.0	0.0	269.00	1.71	-0.00	-90	0.80	E
			Fila A_24	X	281.00	0.40	4.90	15.0	0.0	0.0	281.00	1.71	-0.00	-90	0.80	E
			Fila A_25	X	293.00	0.40	4.90	15.0	0.0	0.0	293.00	1.71	-0.00	-90	0.80	E
			Fila A_26	X	305.00	0.40	4.90	15.0	0.0	0.0	305.00	1.71	-0.00	-90	0.80	E
			Fila A_27	X	317.00	0.40	4.90	15.0	0.0	0.0	317.00	1.71	-0.00	-90	0.80	E
			Fila A_28	X	329.00	0.40	4.90	15.0	0.0	0.0	329.00	1.71	-0.00	-90	0.80	E
			Fila A_29	X	341.00	0.40	4.90	15.0	0.0	0.0	341.00	1.71	-0.00	-90	0.80	E
			Fila A_30	X	353.00	0.40	4.90	15.0	0.0	0.0	353.00	1.71	-0.00	-90	0.80	E
			Fila A_31	X	365.00	0.40	4.90	15.0	0.0	0.0	365.00	1.71	-0.00	-90	0.80	E
			Fila B_1	X	11.00	9.30	4.90	15.0	0.0	180.0	11.00	7.99	-0.00	-90	0.80	E
			Fila B_2	X	23.00	9.30	4.90	15.0	0.0	180.0	23.00	7.99	-0.00	-90	0.80	E
			Fila B_3	X	35.00	9.30	4.90	15.0	0.0	180.0	35.00	7.99	-0.00	-90	0.80	E
			Fila B_4	X	47.00	9.30	4.90	15.0	0.0	180.0	47.00	7.99	-0.00	-90	0.80	E
			Fila B_5	X	59.00	9.30	4.90	15.0	0.0	180.0	59.00	7.99	-0.00	-90	0.80	E
			Fila B_6	X	71.00	9.30	4.90	15.0	0.0	180.0	71.00	7.99	-0.00	-90	0.80	E
			Fila B_7	X	83.00	9.30	4.90	15.0	0.0	180.0	83.00	7.99	-0.00	-90	0.80	E
			Fila B_8	X	95.00	9.30	4.90	15.0	0.0	180.0	95.00	7.99	-0.00	-90	0.80	E
			Fila B_9	X	107.00	9.30	4.90	15.0	0.0	180.0	107.00	7.99	-0.00	-90	0.80	E
			Fila B_10	X	119.00	9.30	4.90	15.0	0.0	180.0	119.00	7.99	-0.00	-90	0.80	E
			Fila B_11	X	131.00	9.30	4.90	15.0	0.0	180.0	131.00	7.99	-0.00	-90	0.80	E
			Fila B_12	X	143.00	9.30	4.90	15.0	0.0	180.0	143.00	7.99	-0.00	-90	0.80	E
			Fila B_13	X	155.00	9.30	4.90	15.0	0.0	180.0	155.00	7.99	-0.00	-90	0.80	E
			Fila B_14	X	167.00	9.30	4.90	15.0	0.0	180.0	167.00	7.99	-0.00	-90	0.80	E
			Fila B_15	X	179.00	9.30	4.90	15.0	0.0	180.0	179.00	7.99	-0.00	-90	0.80	E
			Fila B_16	X	191.00	9.30	4.90	15.0	0.0	180.0	191.00	7.99	-0.00	-90	0.80	E
			Fila B_17	X	203.00	9.30	4.90	15.0	0.0	180.0	203.00	7.99	-0.00	-90	0.80	E
			Fila B_18	X	215.00	9.30	4.90	15.0	0.0	180.0	215.00	7.99	-0.00	-90	0.80	E
			Fila B_19	X	227.00	9.30	4.90	15.0	0.0	180.0	227.00	7.99	-0.00	-90	0.80	E
			Fila B_20	X	239.00	9.30	4.90	15.0	0.0	180.0	239.00	7.99	-0.00	-90	0.80	E
			Fila B_21	X	251.00	9.30	4.90	15.0	0.0	180.0	251.00	7.99	-0.00	-90	0.80	E
			Fila B_22	X	263.00	9.30	4.90	15.0	0.0	180.0	263.00	7.99	-0.00	-90	0.80	E
			Fila B_23	X	275.00	9.30	4.90	15.0	0.0	180.0	275.00	7.99	-0.00	-90	0.80	E
			Fila B_24	X	287.00	9.30	4.90	15.0	0.0	180.0	287.00	7.99	-0.00	-90	0.80	E
			Fila B_25	X	299.00	9.30	4.90	15.0	0.0	180.0	299.00	7.99	-0.00	-90	0.80	E
			Fila B_26	X	311.00	9.30	4.90	15.0	0.0	180.0	311.00	7.99	-0.00	-90	0.80	E
			Fila B_27	X	323.00	9.30	4.90	15.0	0.0	180.0	323.00	7.99	-0.00	-90	0.80	E
			Fila B_28	X	335.00	9.30	4.90	15.0	0.0	180.0	335.00	7.99	-0.00	-90	0.80	E
			Fila B_29	X	347.00	9.30	4.90	15.0	0.0	180.0	347.00	7.99	-0.00	-90	0.80	E
			Fila B_30	X	359.00	9.30	4.90	15.0	0.0	180.0	359.00	7.99	-0.00	-90	0.80	E



**4.1 Valori delle Luminanze su: Carregg A C1 Oss. 1(x=-60.00;y=2.97;z=1.50)m**

Scala 1/200

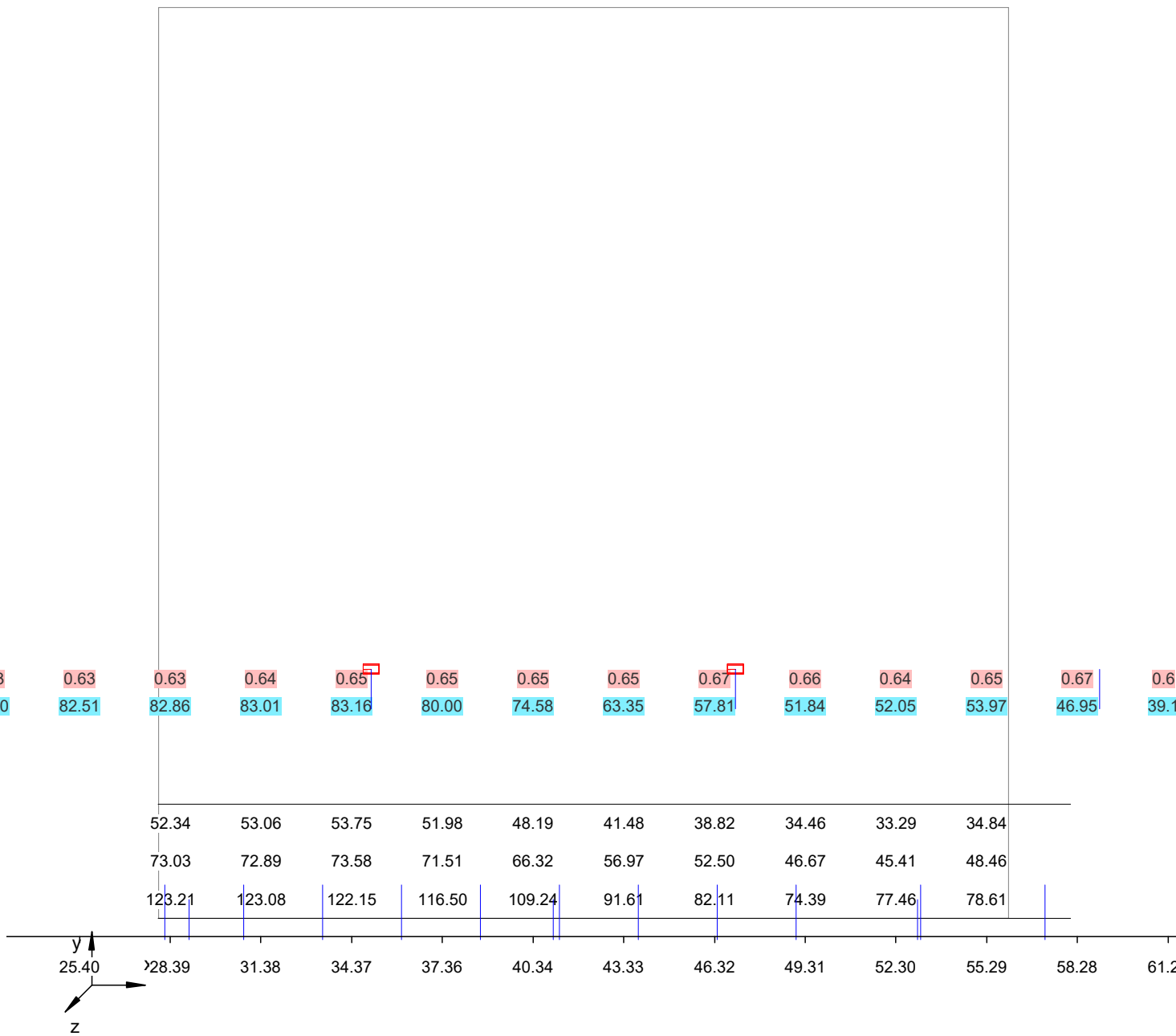
Parte 1 di 10



**4.1 Valori delle Luminanze su: Carregg A C1 Oss. 1(x=-60.00;y=2.97;z=1.50)m**

Scala 1/200

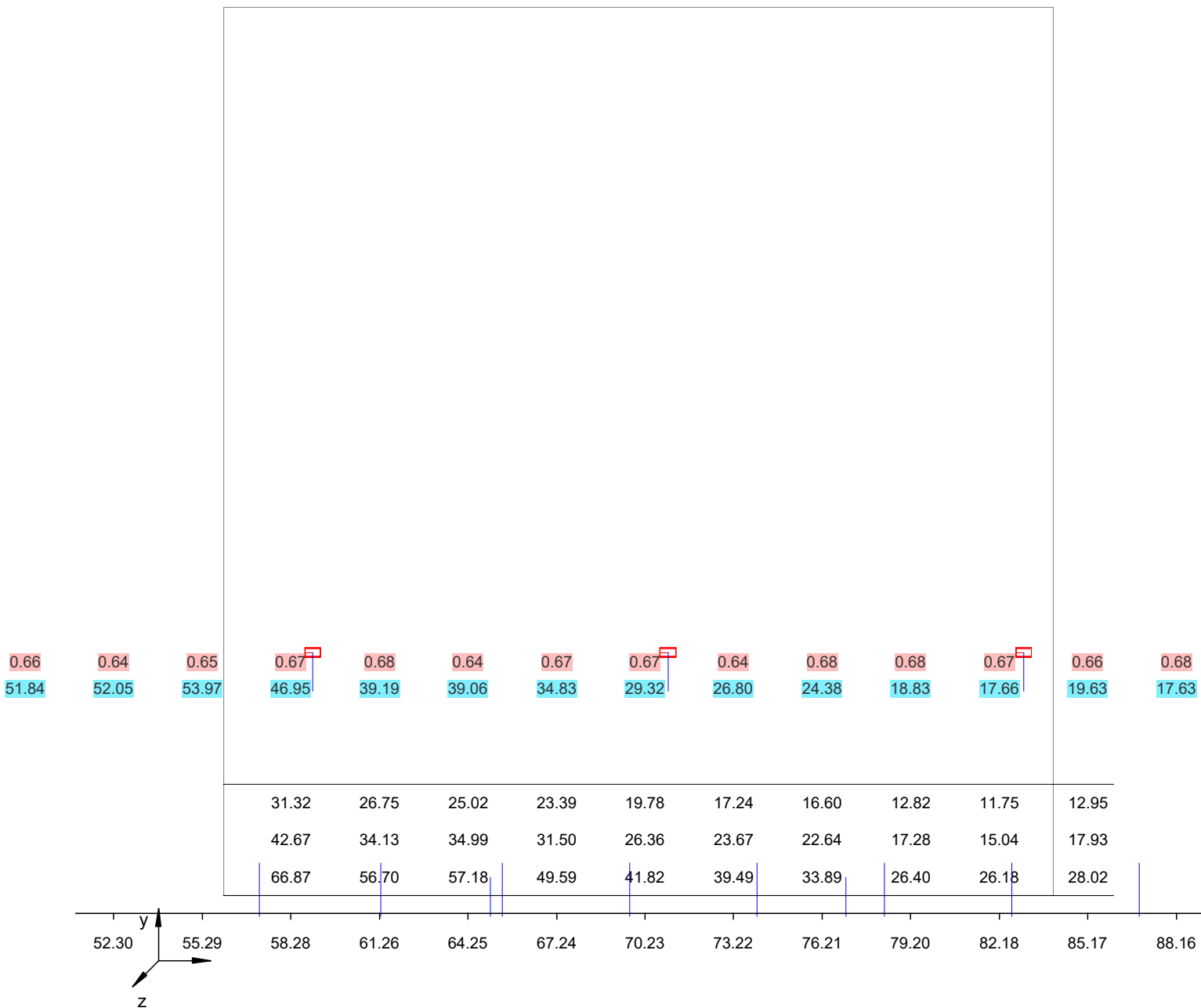
Parte 2 di 10



4.1 Valori delle Luminanze su: Carregg A C1 Oss. 1(x=-60.00;y=2.97;z=1.50)m

Scala 1/200

Parte 3 di 10

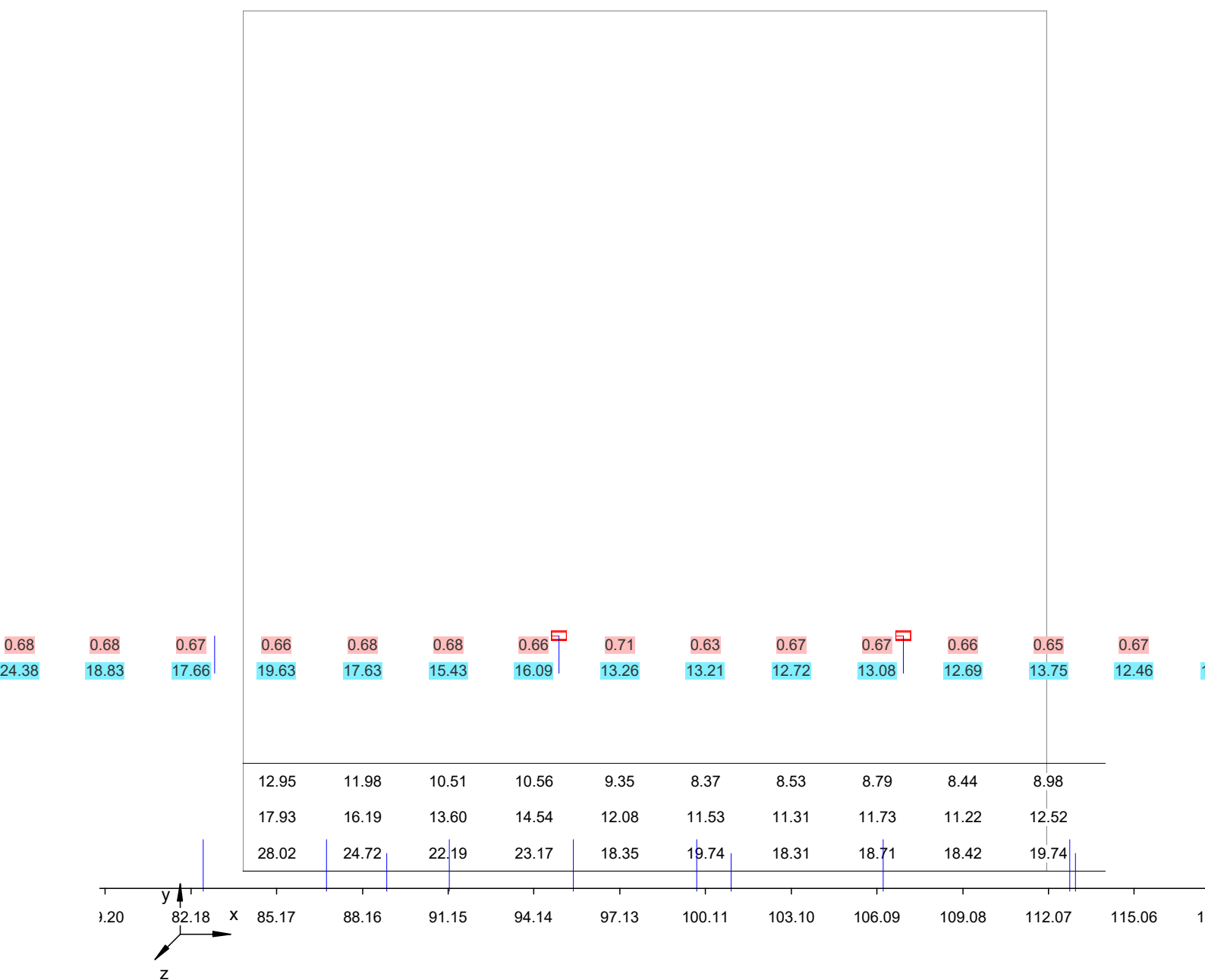




4.1 Valori delle Luminanze su: Carregg A C1 Oss. 1(x=-60.00;y=2.97;z=1.50)m

Scala 1/200

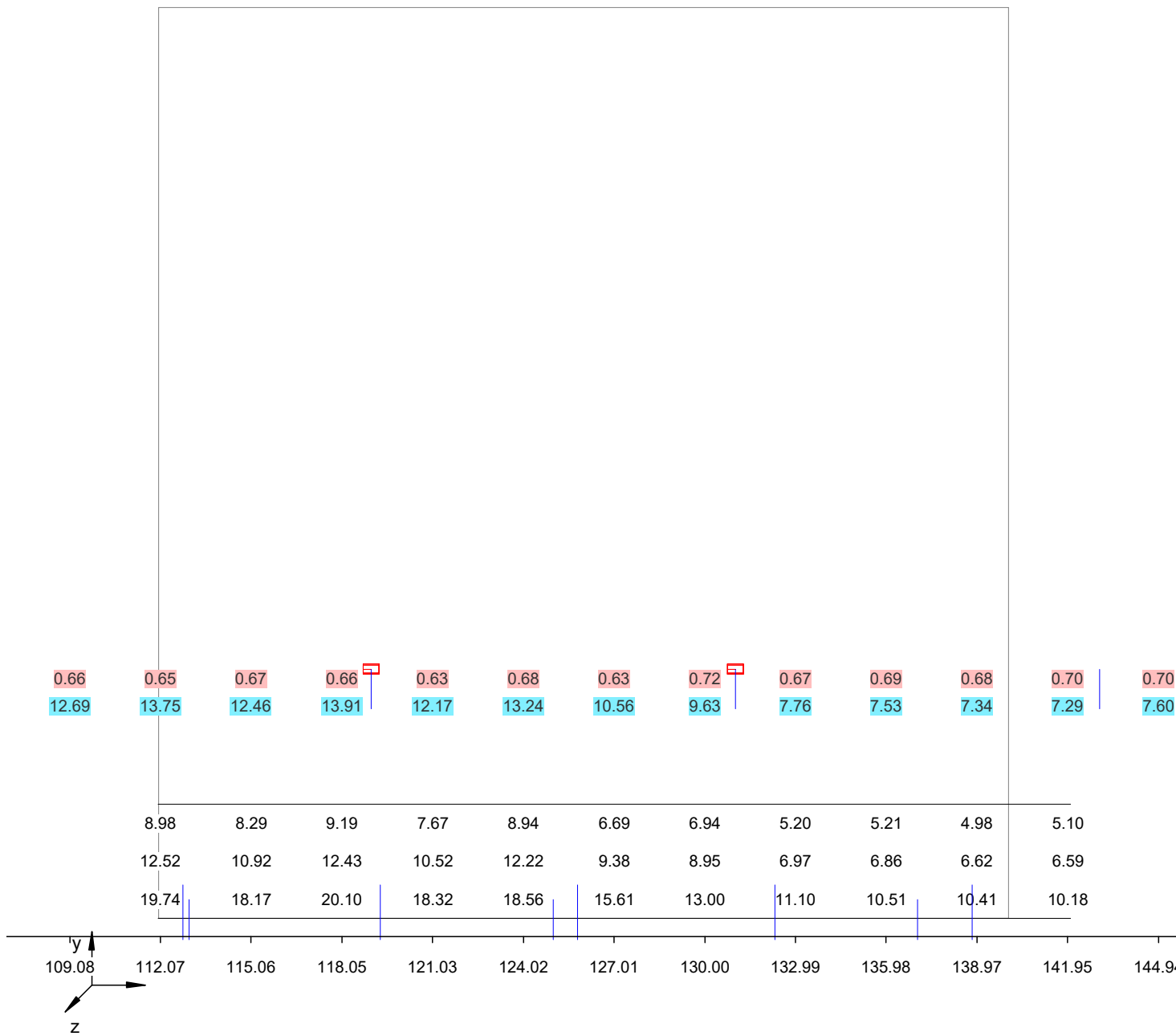
Parte 4 di 10



4.1 Valori delle Luminanze su: Carregg A C1 Oss. 1(x=-60.00;y=2.97;z=1.50)m

Scala 1/200

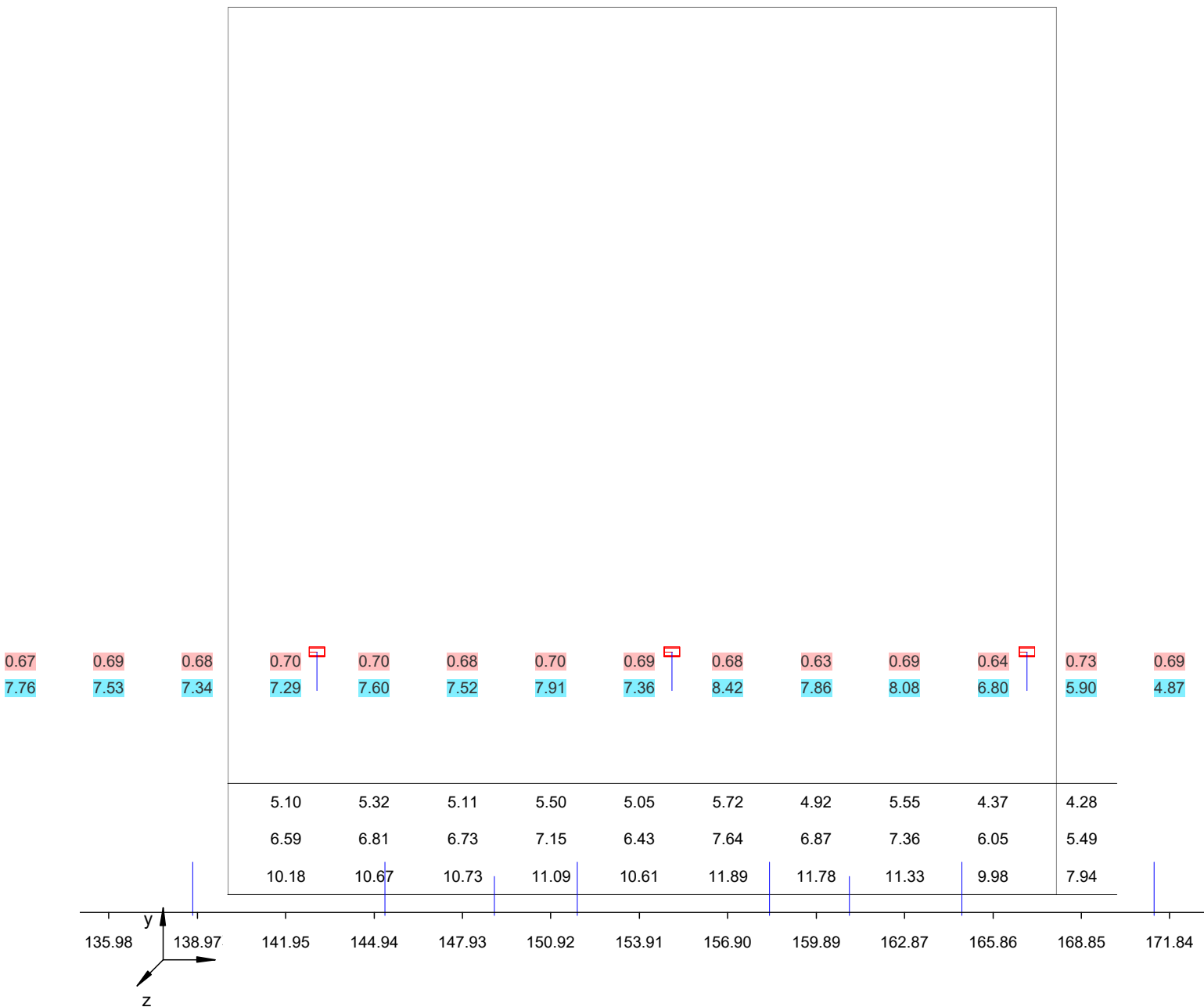
Parte 5 di 10



4.1 Valori delle Luminanze su: Carregg A C1 Oss. 1(x=-60.00;y=2.97;z=1.50)m

Scala 1/200

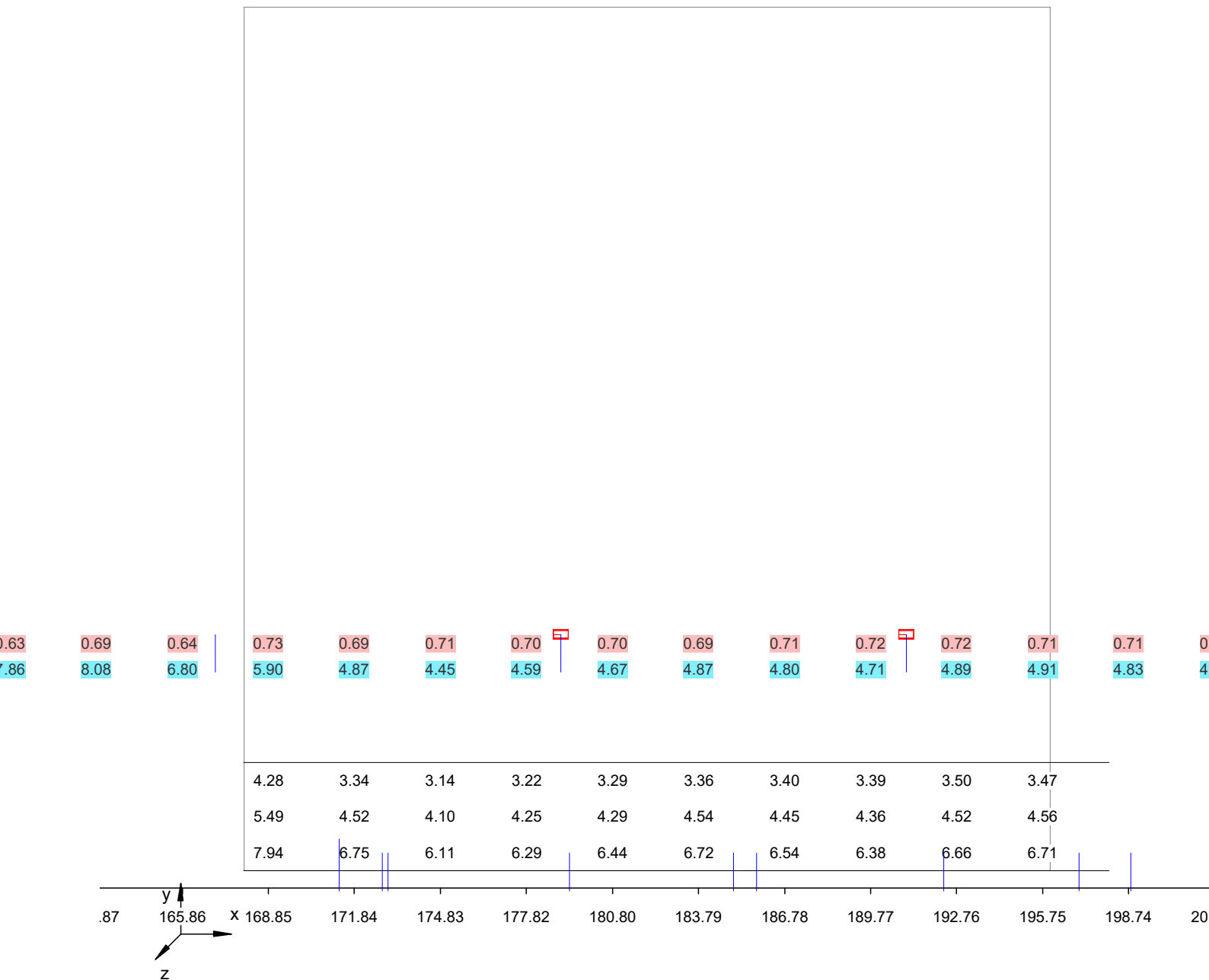
Parte 6 di 10



**4.1 Valori delle Luminanze su: Carregg A C1 Oss. 1(x=-60.00;y=2.97;z=1.50)m**

Scala 1/200

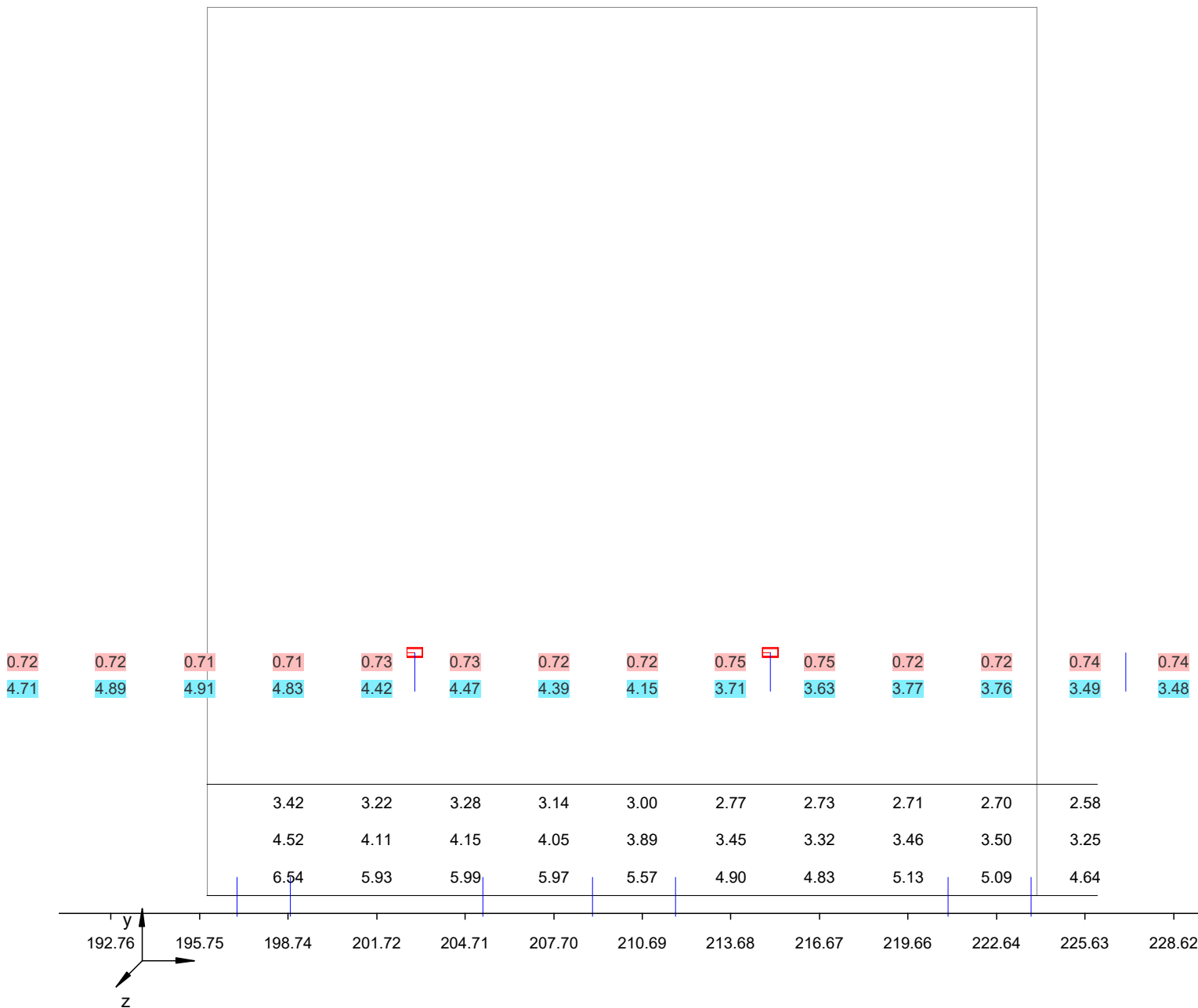
Parte 7 di 10



**4.1 Valori delle Luminanze su: Carregg A C1 Oss. 1(x=-60.00;y=2.97;z=1.50)m**

Scala 1/200

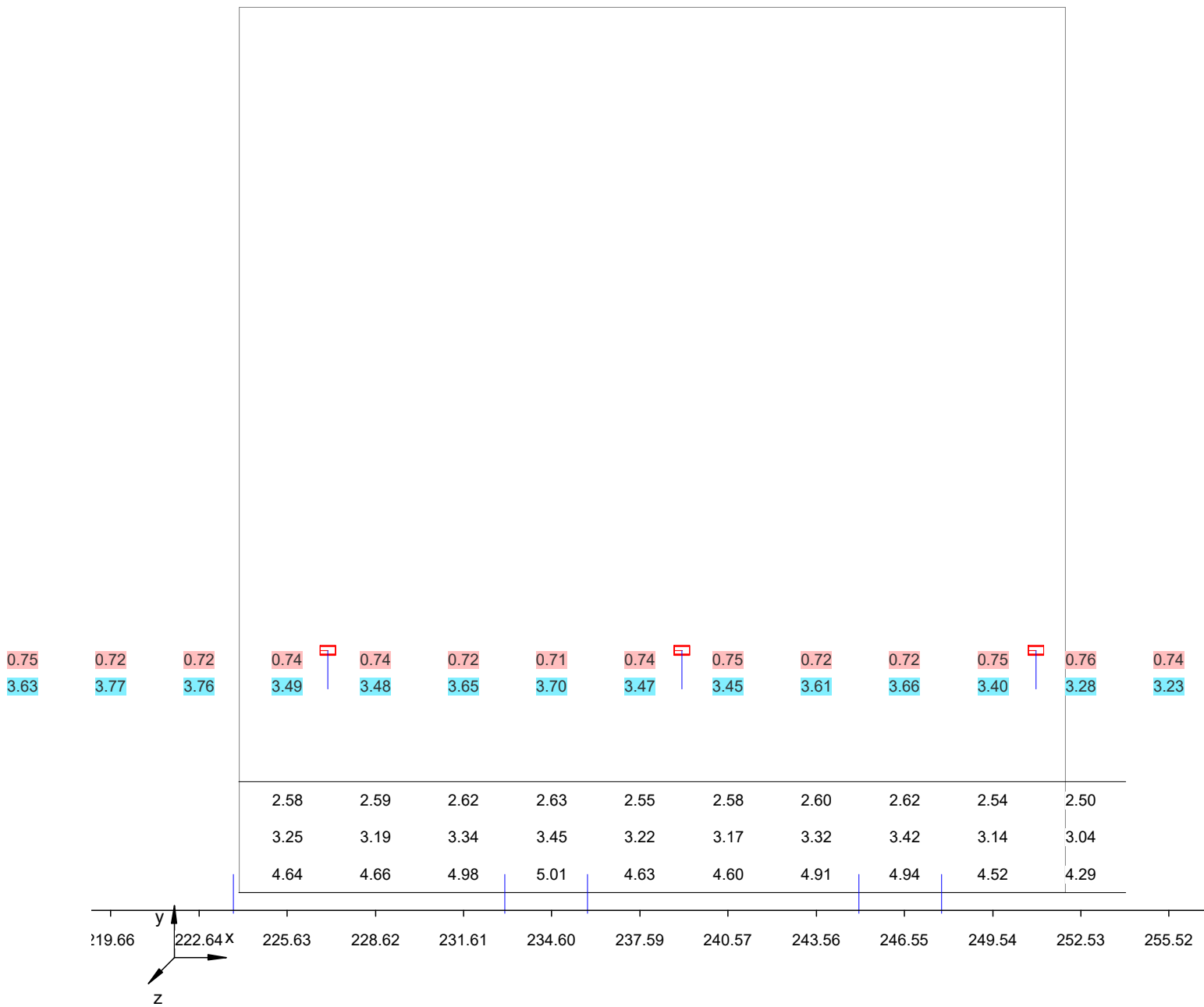
Parte 8 di 10



**4.1 Valori delle Luminanze su: Carregg A C1 Oss. 1(x=-60.00;y=2.97;z=1.50)m**

Scala 1/200

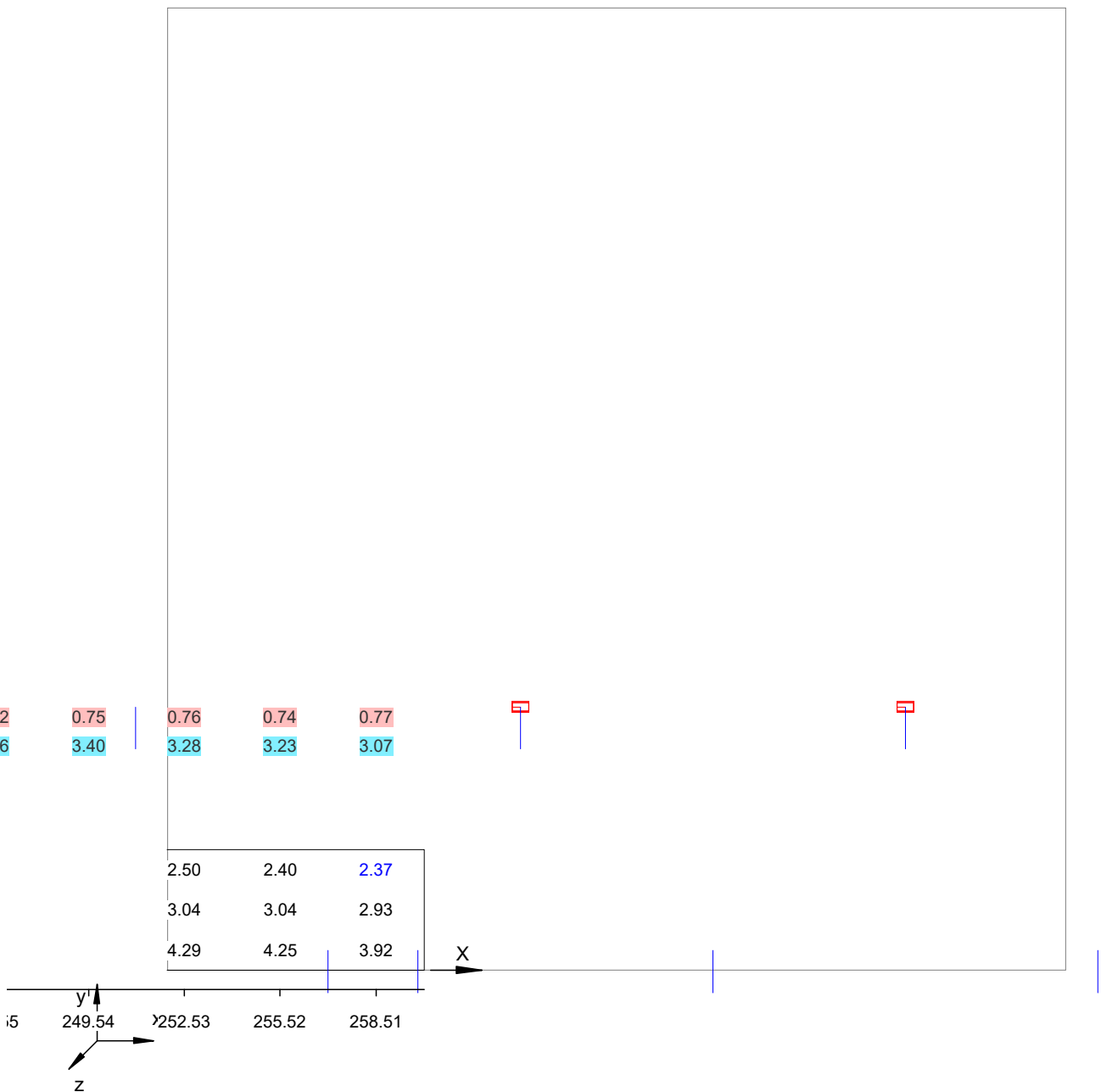
Parte 9 di 10



### 4.1 Valori delle Luminanze su: Carregg A C1 Oss. 1(x=-60.00;y=2.97;z=1.50)m

Scala 1/200

Parte 10 di 10

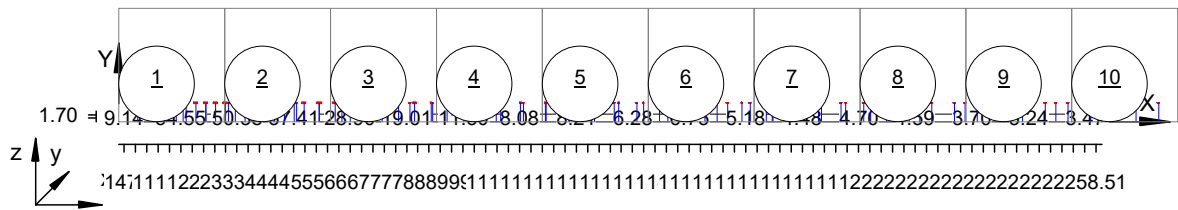


4.2 Valori delle Luminanze su: Parete Destra (x=-60.00;y=2.97;z=1.50)m ---> (x=30.00;y=2.97;z=0.00)

4.2 Valori delle Luminanze su: Parete Destra (x=-60.00;y=2.97;z=1.50)m ---> (x=30.00;y=2.97;z=0.00)

Scala 1/2000

Totale Parti: 10

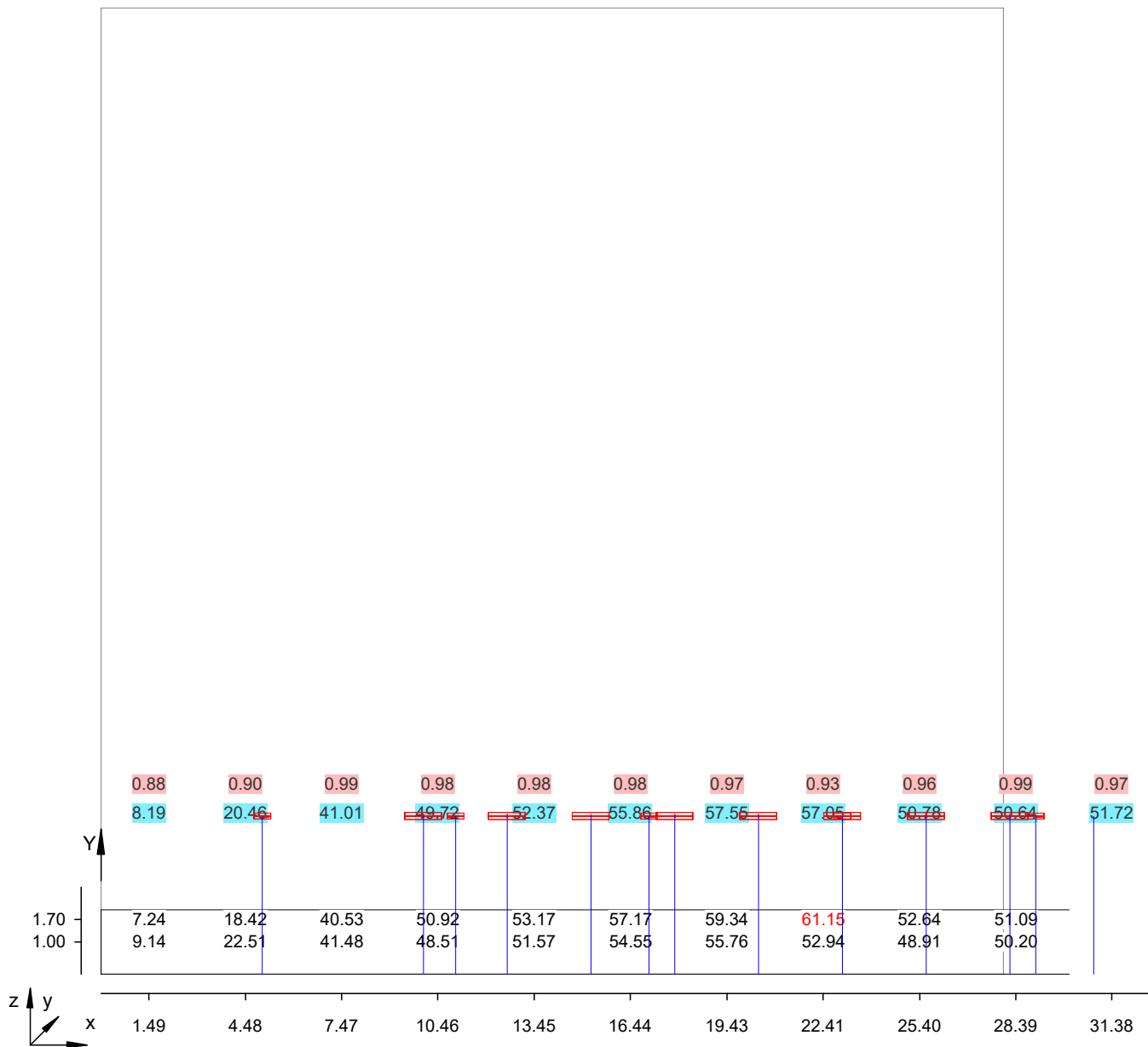




4.2 Valori delle Luminanze su: Parete Destra (x=-60.00;y=2.97;z=1.50)m ---> (x=30.00;y=2.97;z=0.00)

Scala 1/200

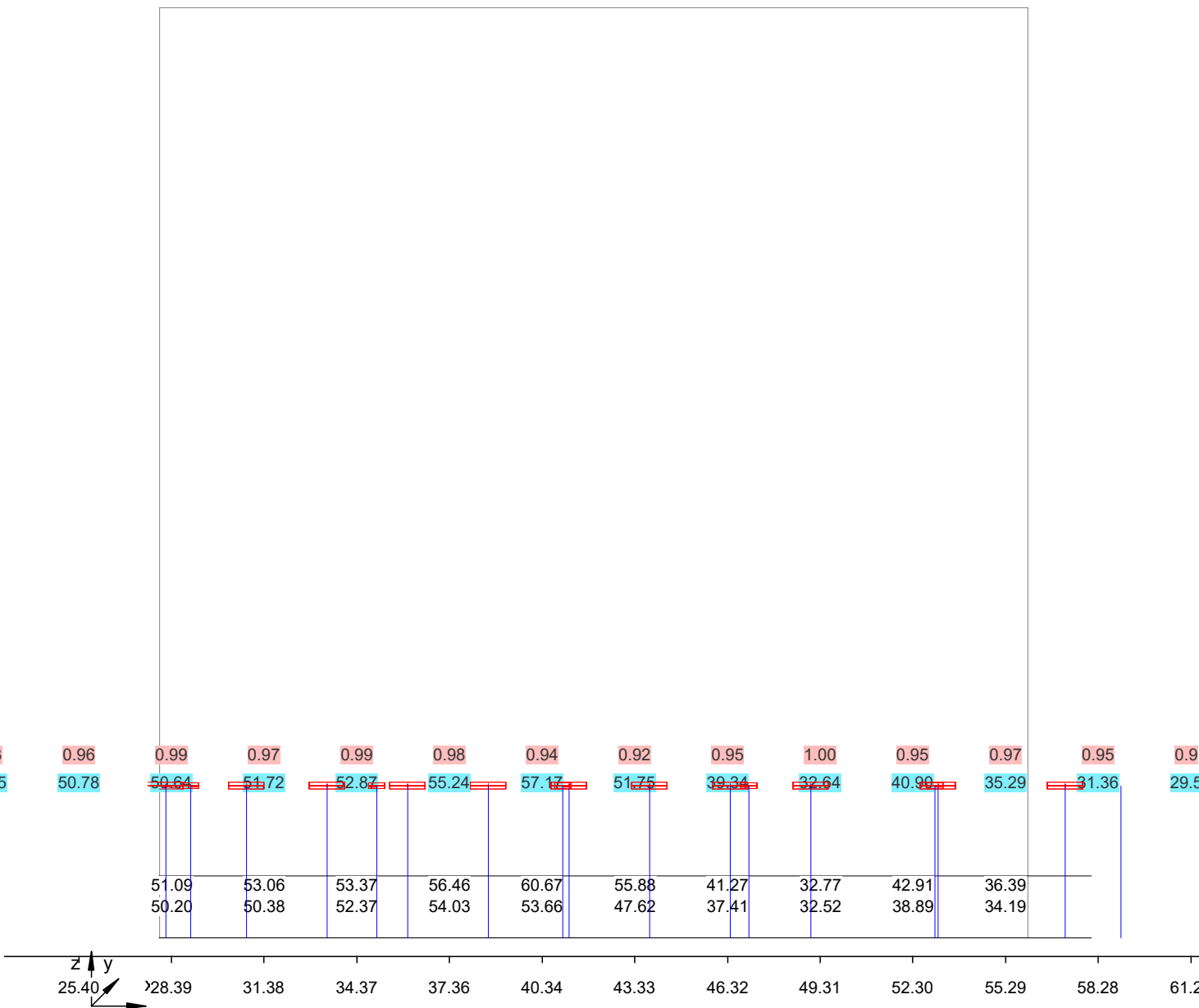
Parte 1 di 10



4.2 Valori delle Luminanze su: Parete Destra (x=-60.00;y=2.97;z=1.50)m ---> (x=30.00;y=2.97;z=0.00)

Scala 1/200

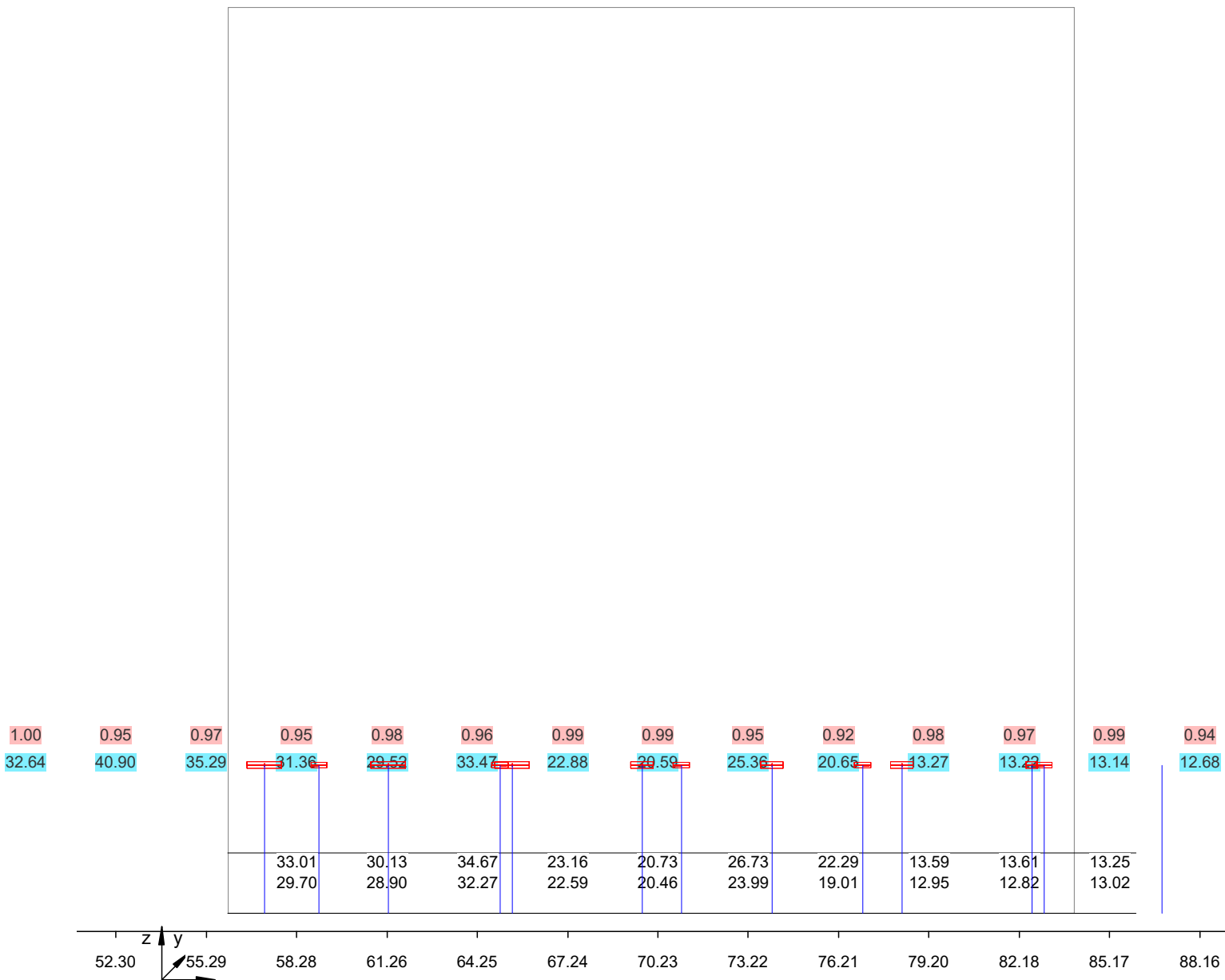
Parte 2 di 10



4.2 Valori delle Luminanze su: Parete Destra (x=-60.00;y=2.97;z=1.50)m ---> (x=30.00;y=2.97;z=0.00)

Scala 1/200

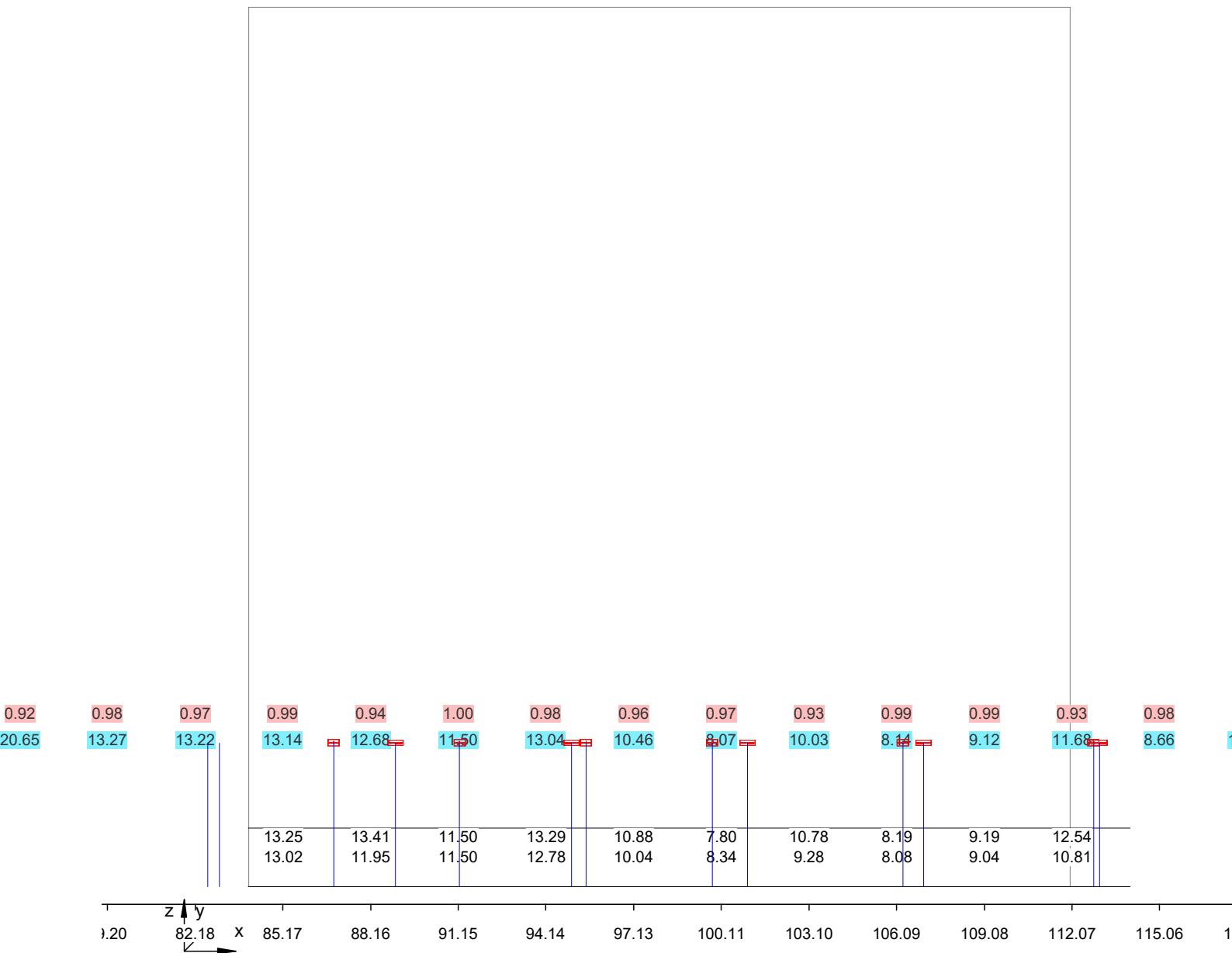
Parte 3 di 10



4.2 Valori delle Luminanze su: Parete Destra (x=-60.00;y=2.97;z=1.50)m ---> (x=30.00;y=2.97;z=0.00)

Scala 1/200

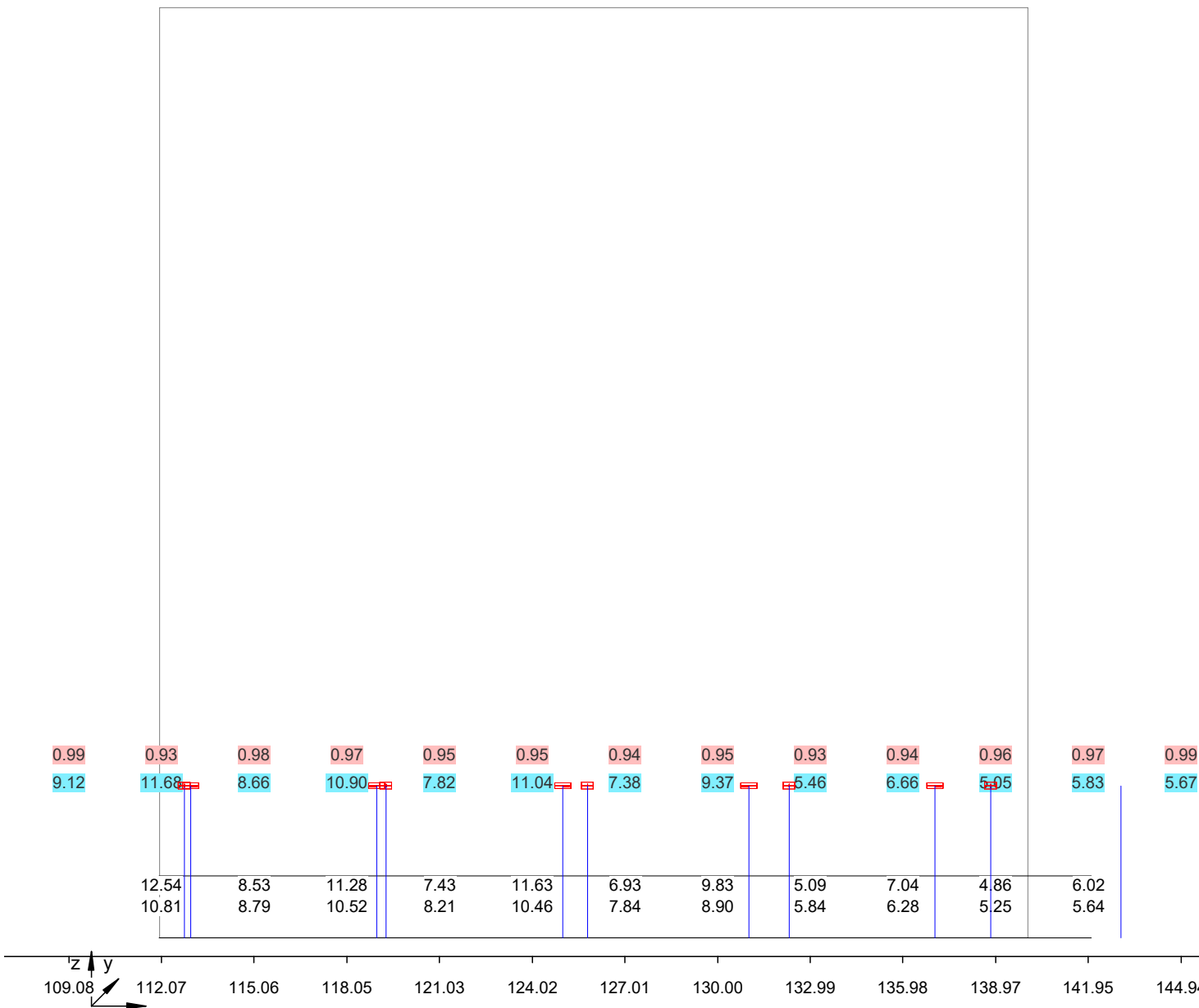
Parte 4 di 10



4.2 Valori delle Luminanze su: Parete Destra (x=-60.00;y=2.97;z=1.50)m ---> (x=30.00;y=2.97;z=0.00)

Scala 1/200

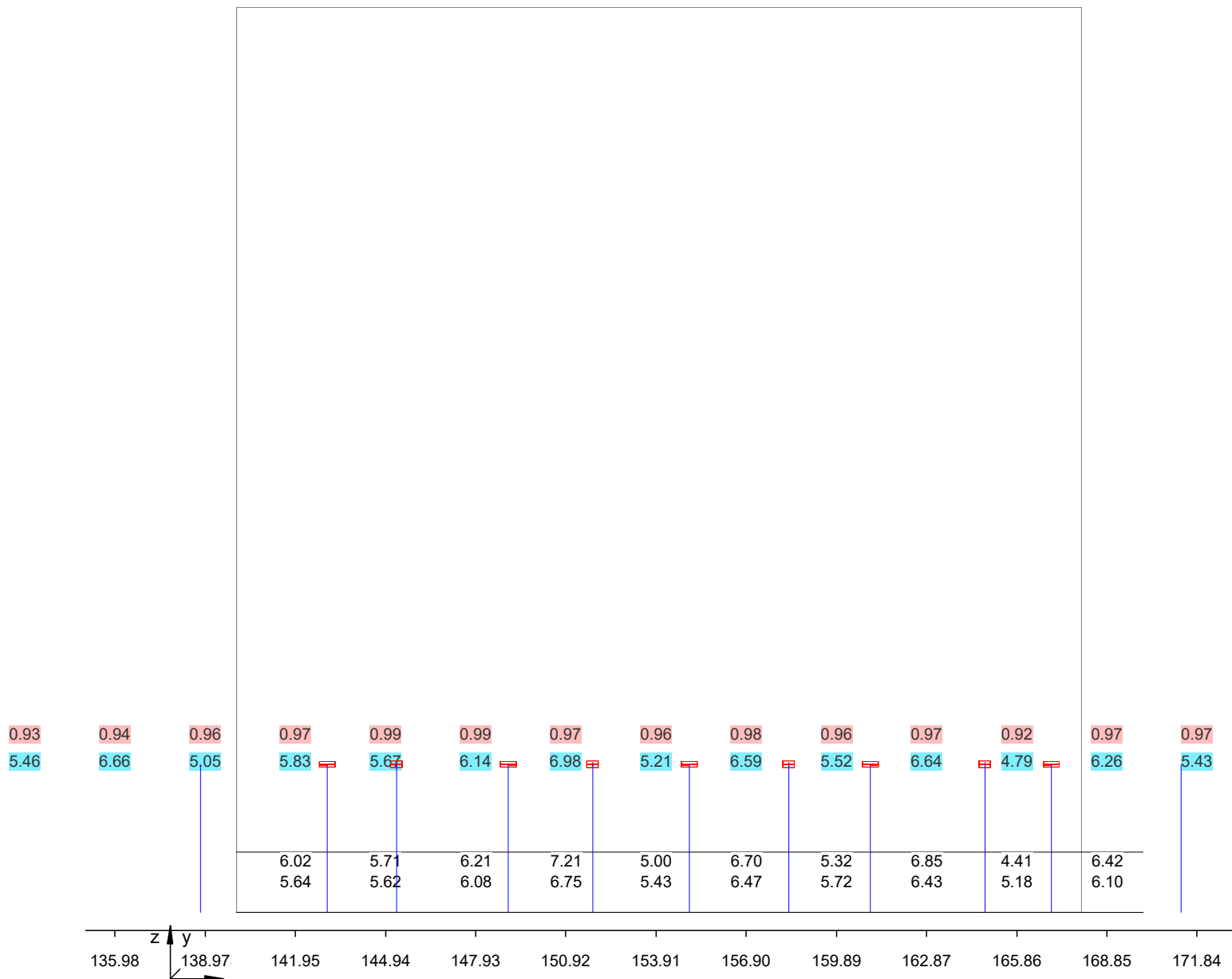
Parte 5 di 10



4.2 Valori delle Luminanze su: Parete Destra (x=-60.00;y=2.97;z=1.50)m ---> (x=30.00;y=2.97;z=0.00)

Scala 1/200

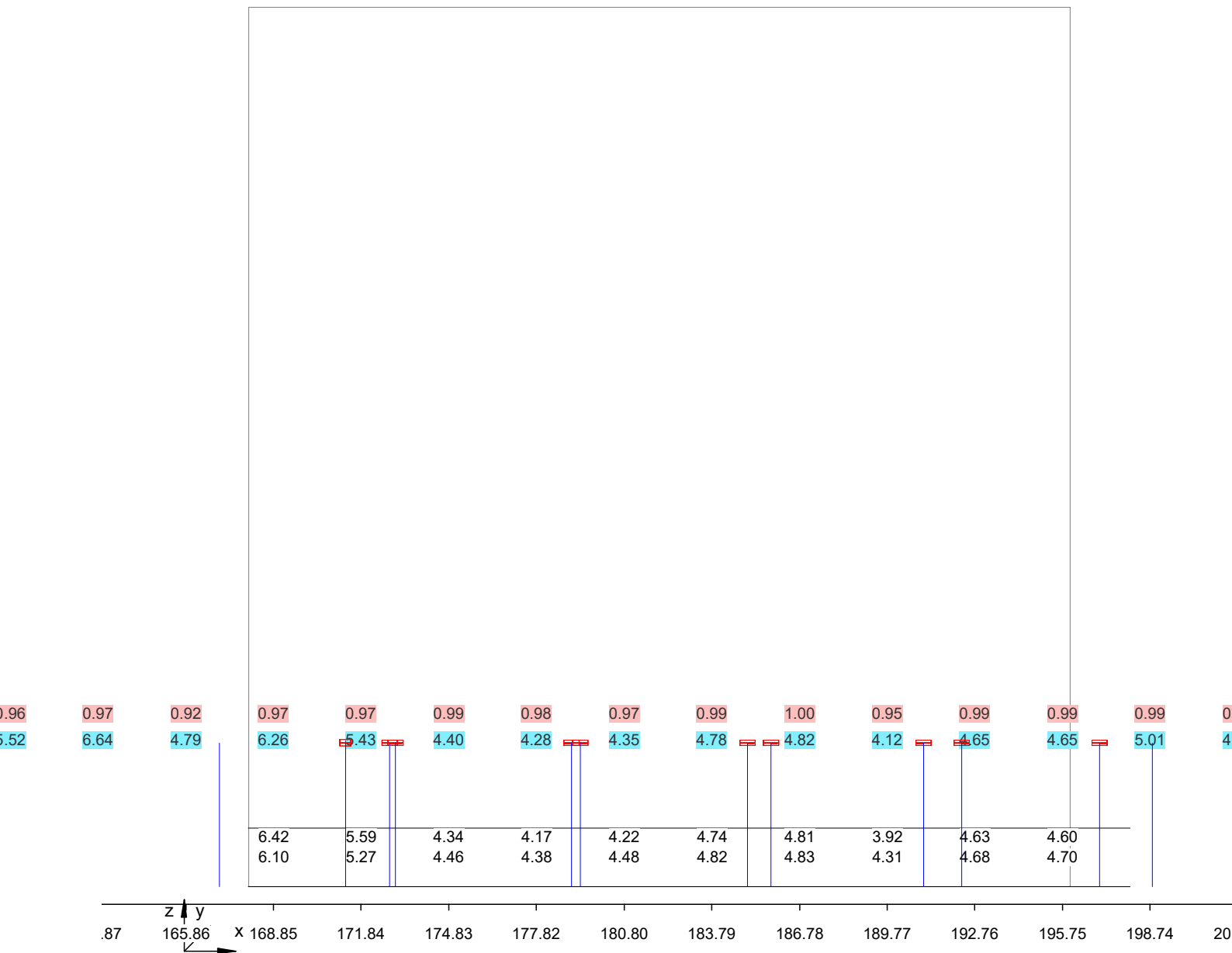
Parte 6 di 10



4.2 Valori delle Luminanze su: Parete Destra (x=-60.00;y=2.97;z=1.50)m ---> (x=30.00;y=2.97;z=0.00)

Scala 1/200

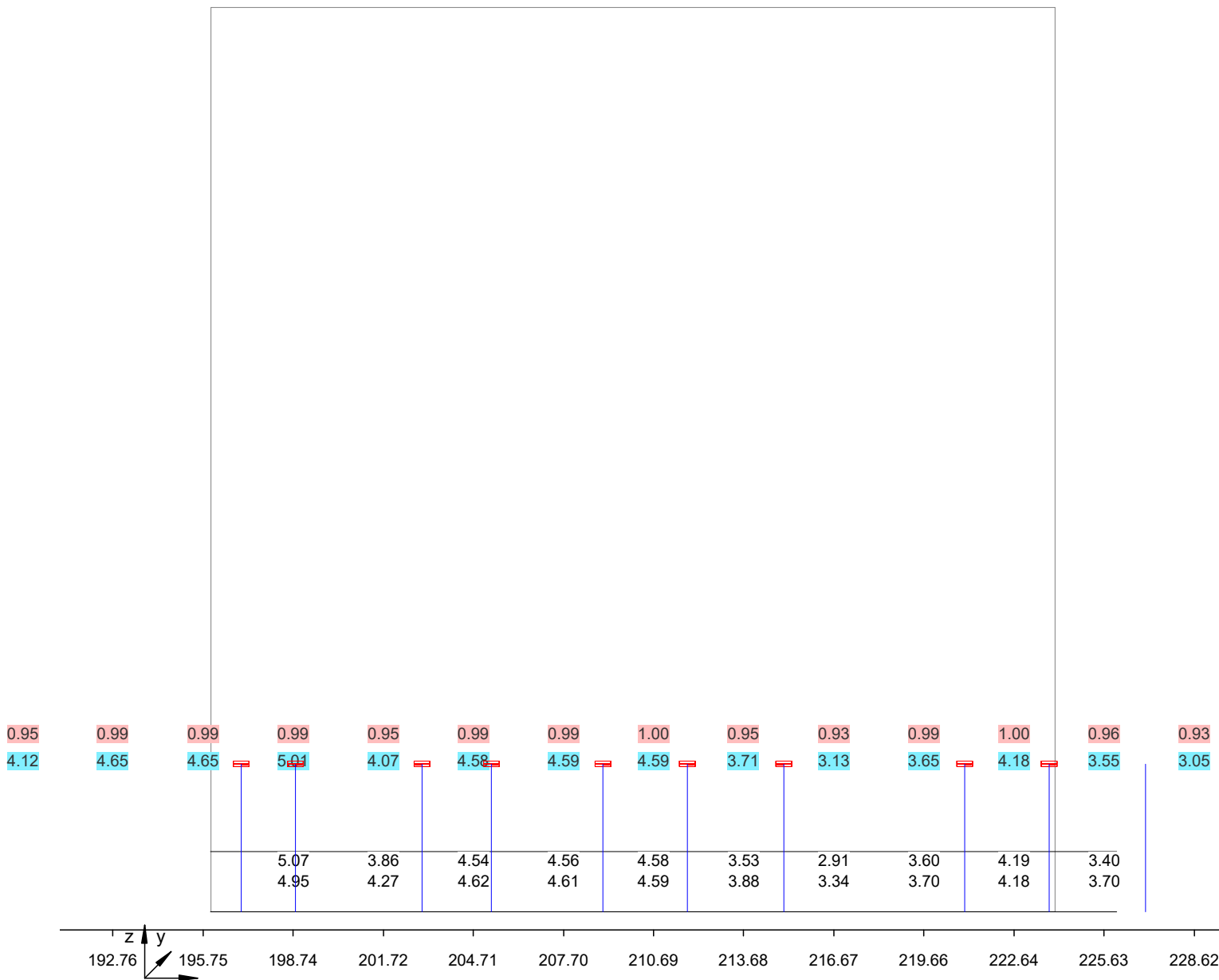
Parte 7 di 10



4.2 Valori delle Luminanze su: Parete Destra (x=-60.00;y=2.97;z=1.50)m ---> (x=30.00;y=2.97;z=0.00)

Scala 1/200

Parte 8 di 10

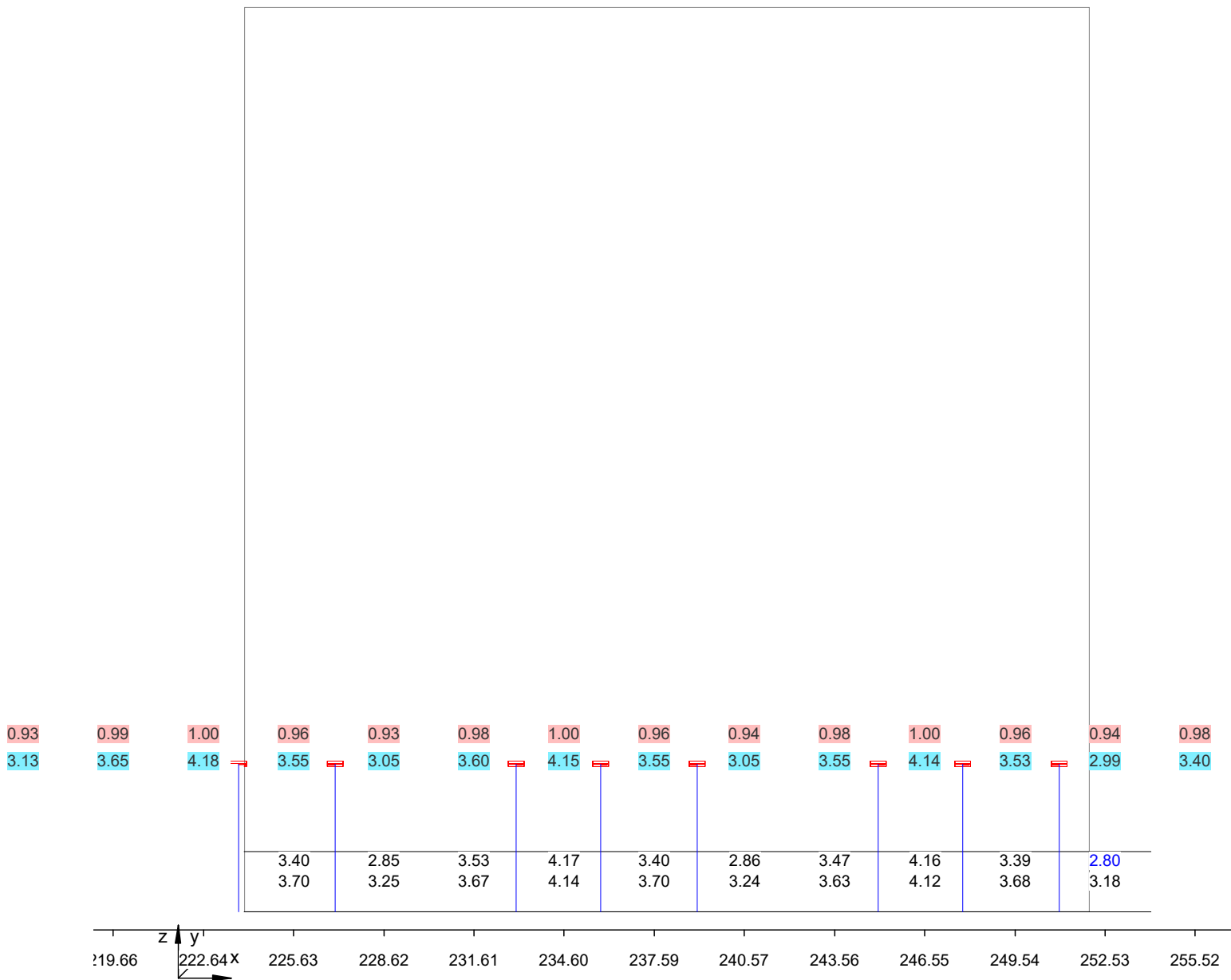




4.2 Valori delle Luminanze su: Parete Destra (x=-60.00;y=2.97;z=1.50)m ---> (x=30.00;y=2.97;z=0.00)

Scala 1/200

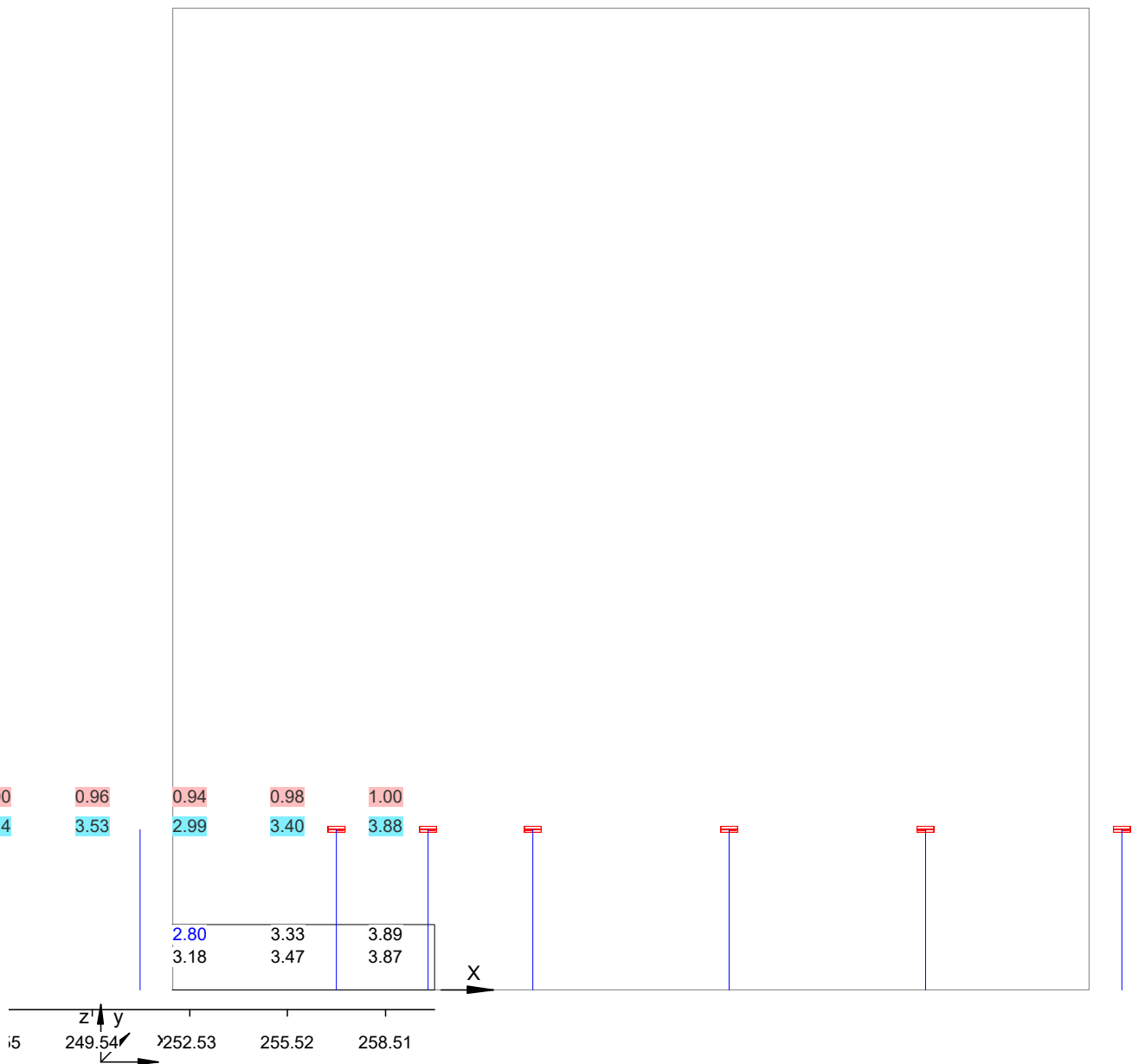
Parte 9 di 10



4.2 Valori delle Luminanze su: Parete Destra (x=-60.00;y=2.97;z=1.50)m ---> (x=30.00;y=2.97;z=0.00)

Scala 1/200

Parte 10 di 10

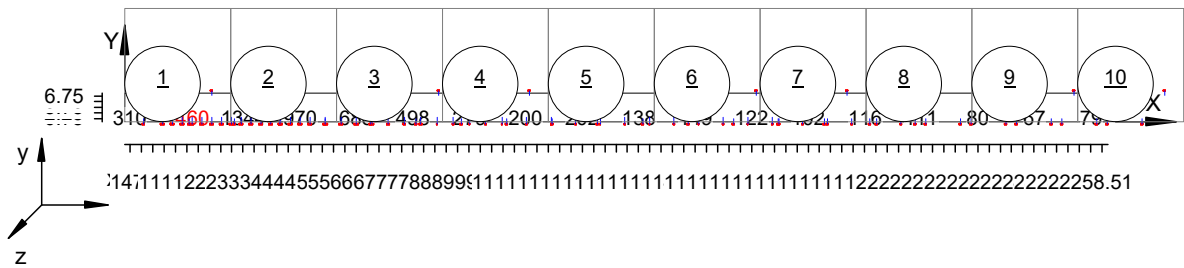


### 4.3 Valori di Illuminamento su: Carregg\_A

### 4.3 Valori di Illuminamento su: Carregg\_A

Scala 1/2000

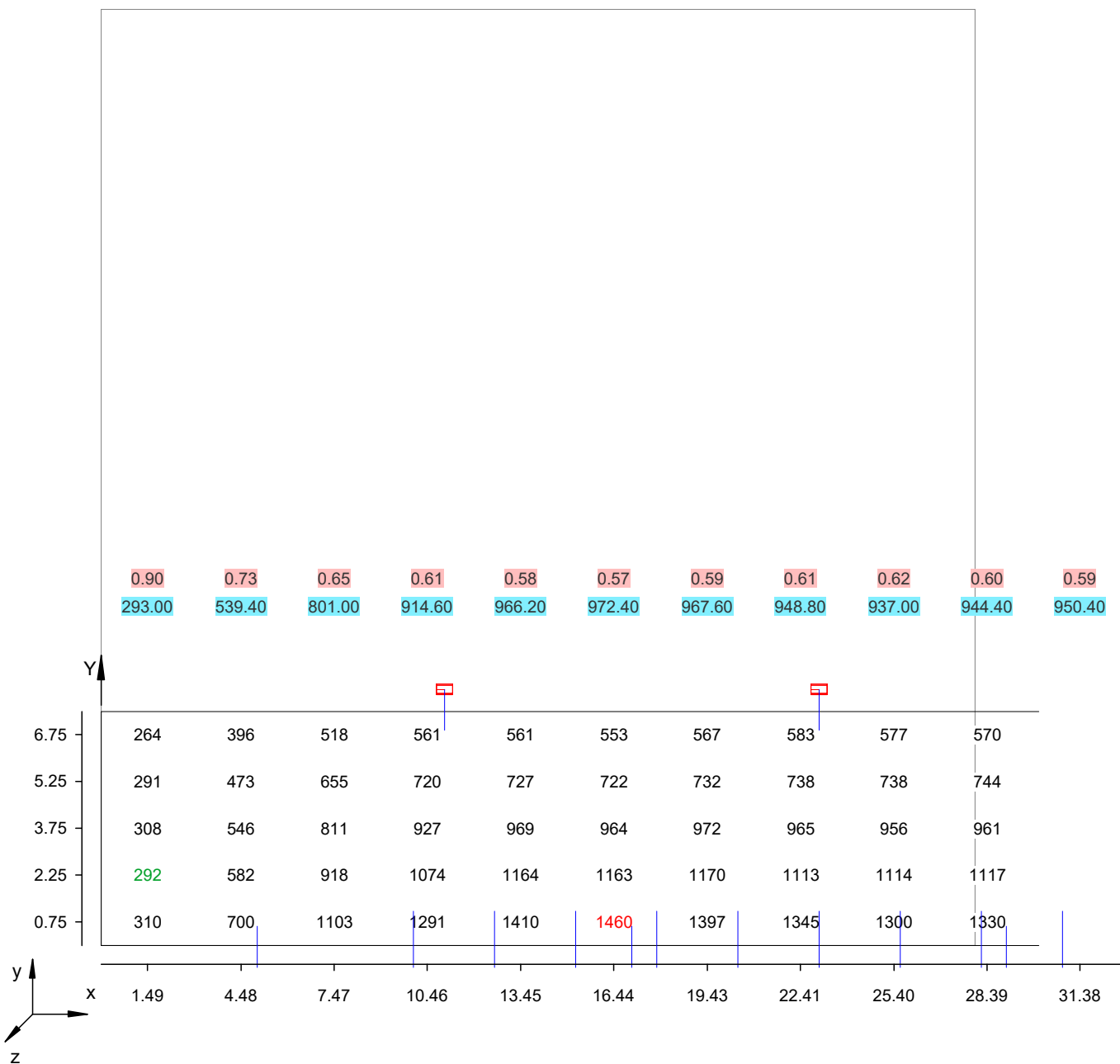
Totale Parti: 10



### 4.3 Valori di Illuminamento su: Carregg A

Scala 1/200

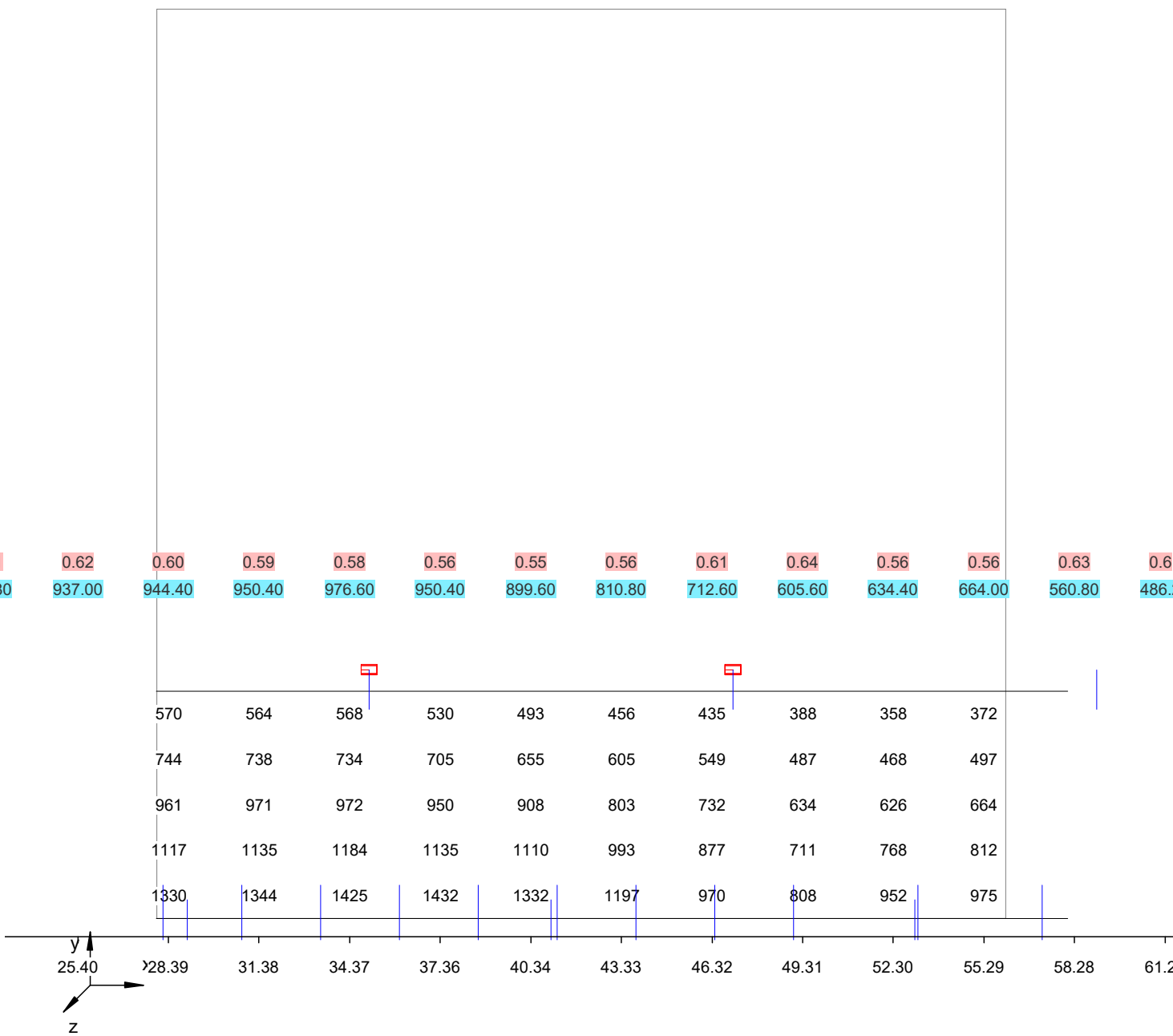
Parte 1 di 10



### 4.3 Valori di Illuminamento su: Carregg A

Scala 1/200

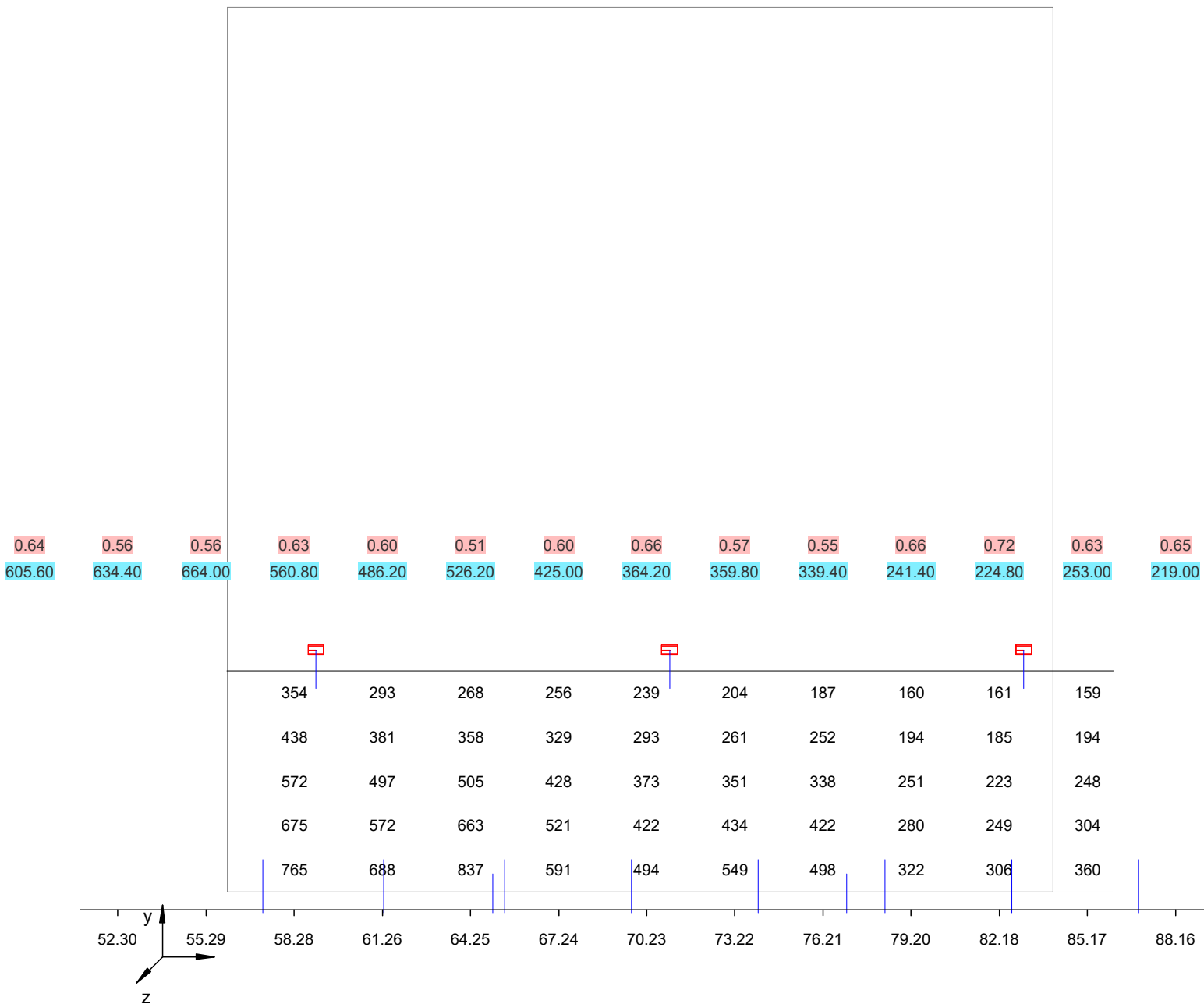
Parte 2 di 10



### 4.3 Valori di Illuminamento su: Carregg A

Scala 1/200

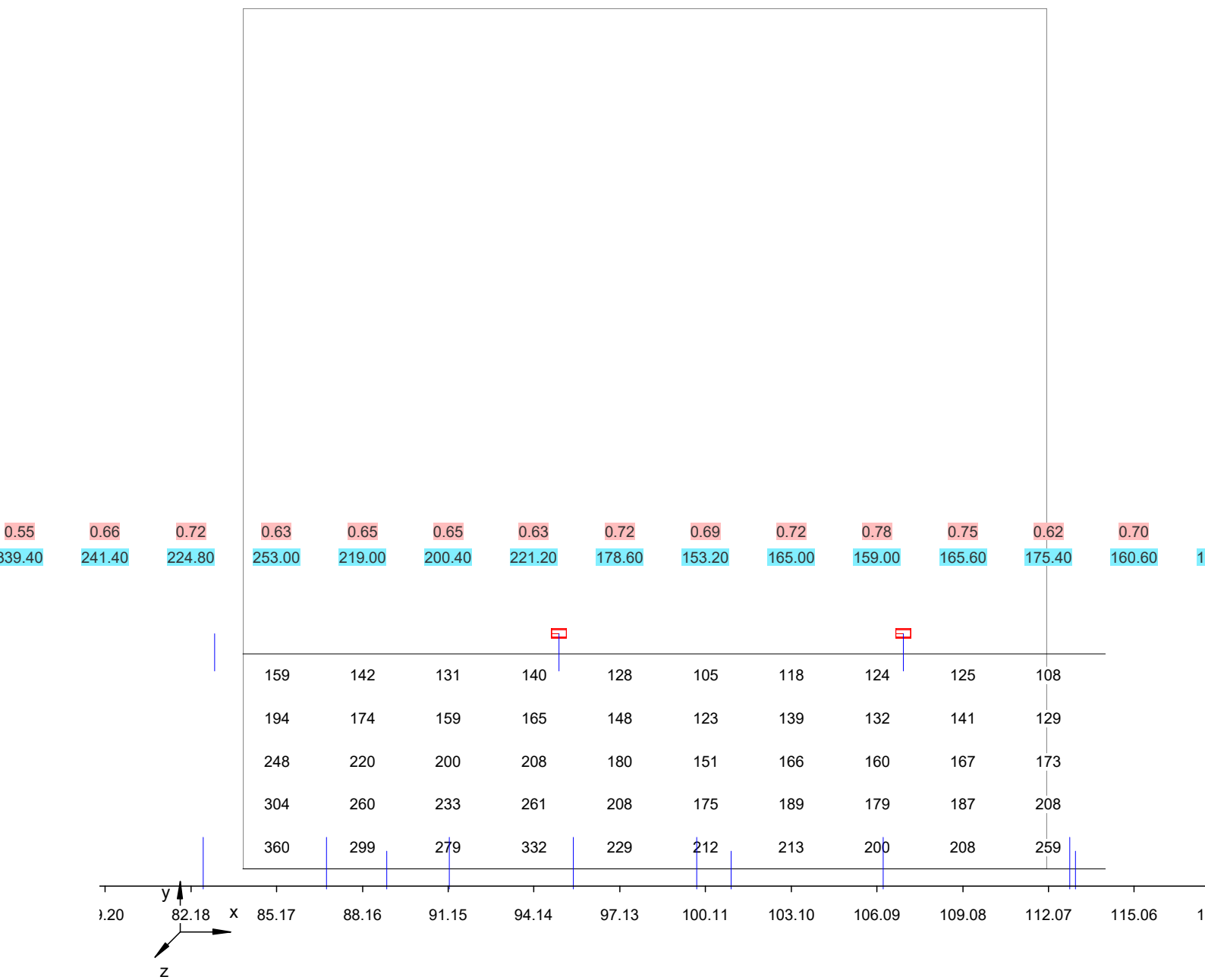
Parte 3 di 10



### 4.3 Valori di Illuminamento su: Carregg A

Scala 1/200

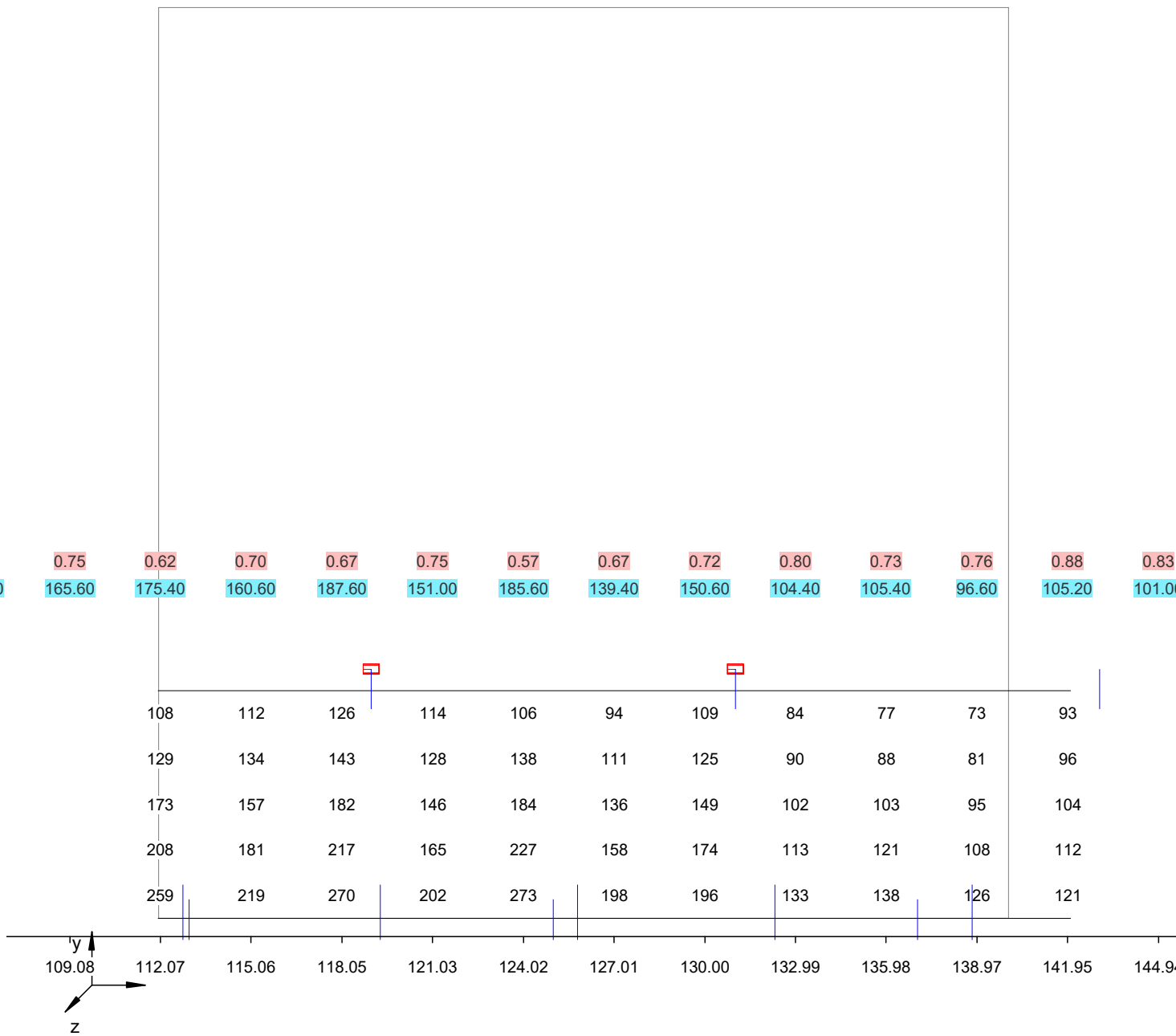
Parte 4 di 10



### 4.3 Valori di Illuminamento su: Carregg A

Scala 1/200

Parte 5 di 10

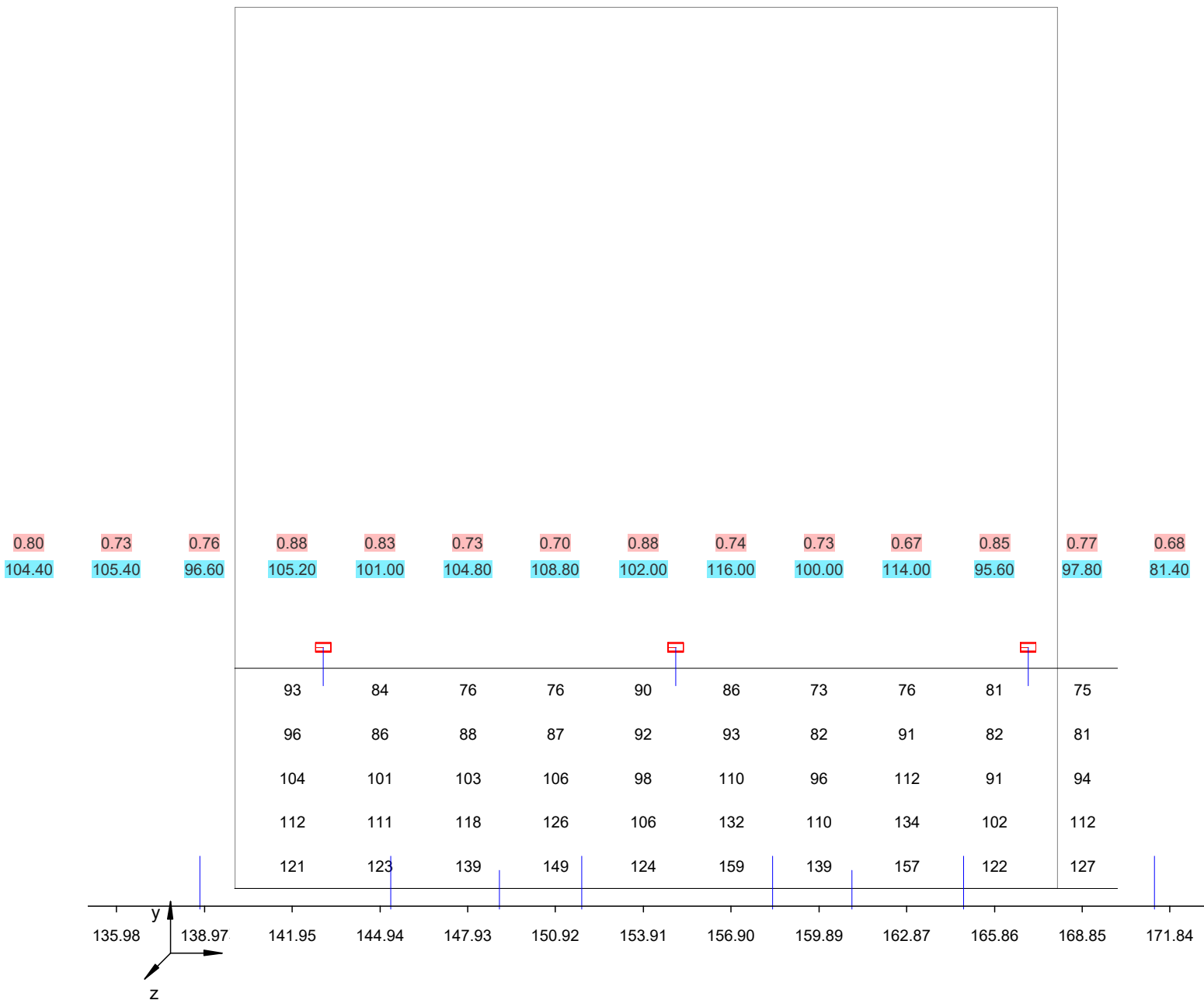




### 4.3 Valori di Illuminamento su: Carregg A

Scala 1/200

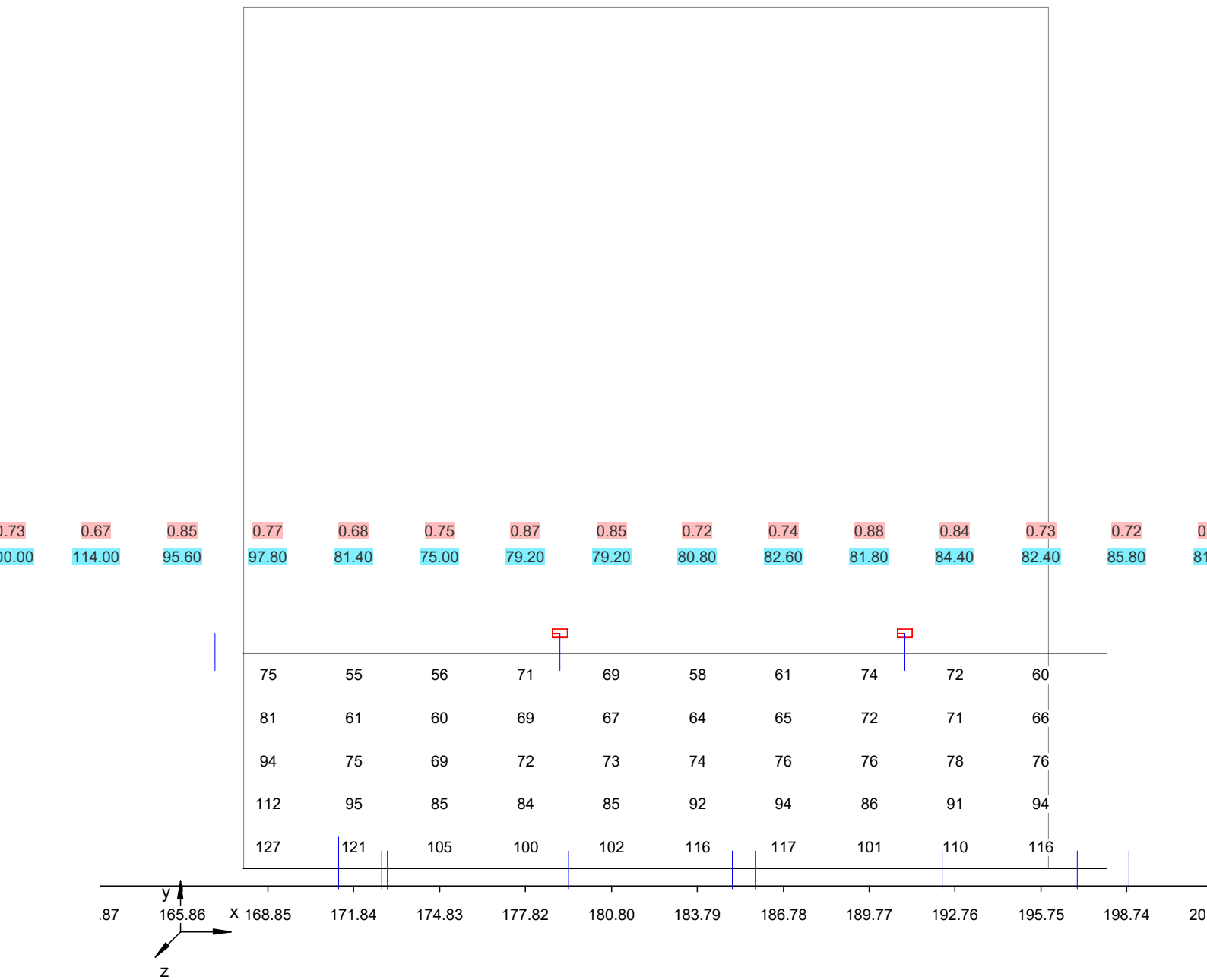
Parte 6 di 10



### 4.3 Valori di Illuminamento su: Carregg A

Scala 1/200

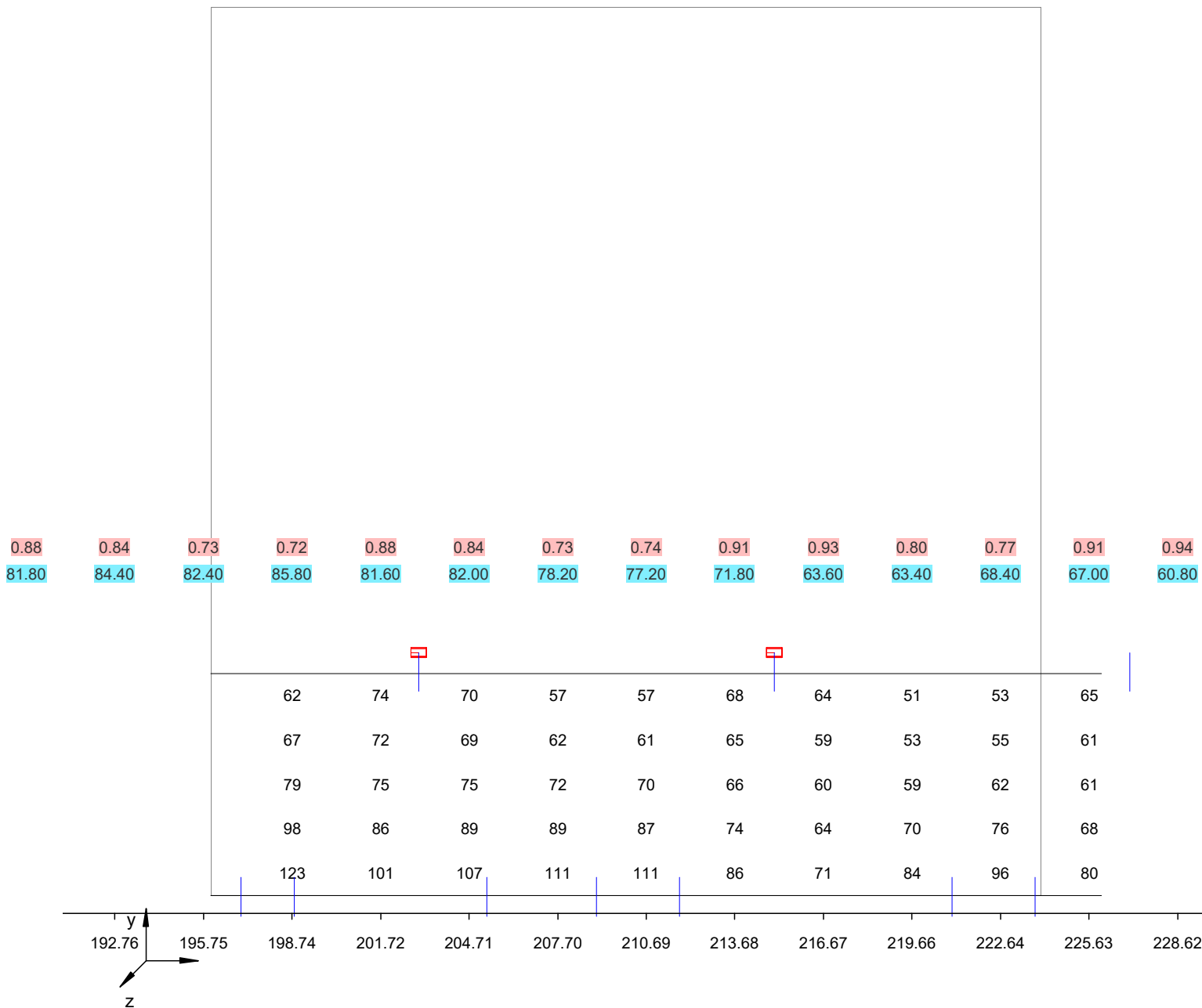
Parte 7 di 10



### 4.3 Valori di Illuminamento su: Carregg A

Scala 1/200

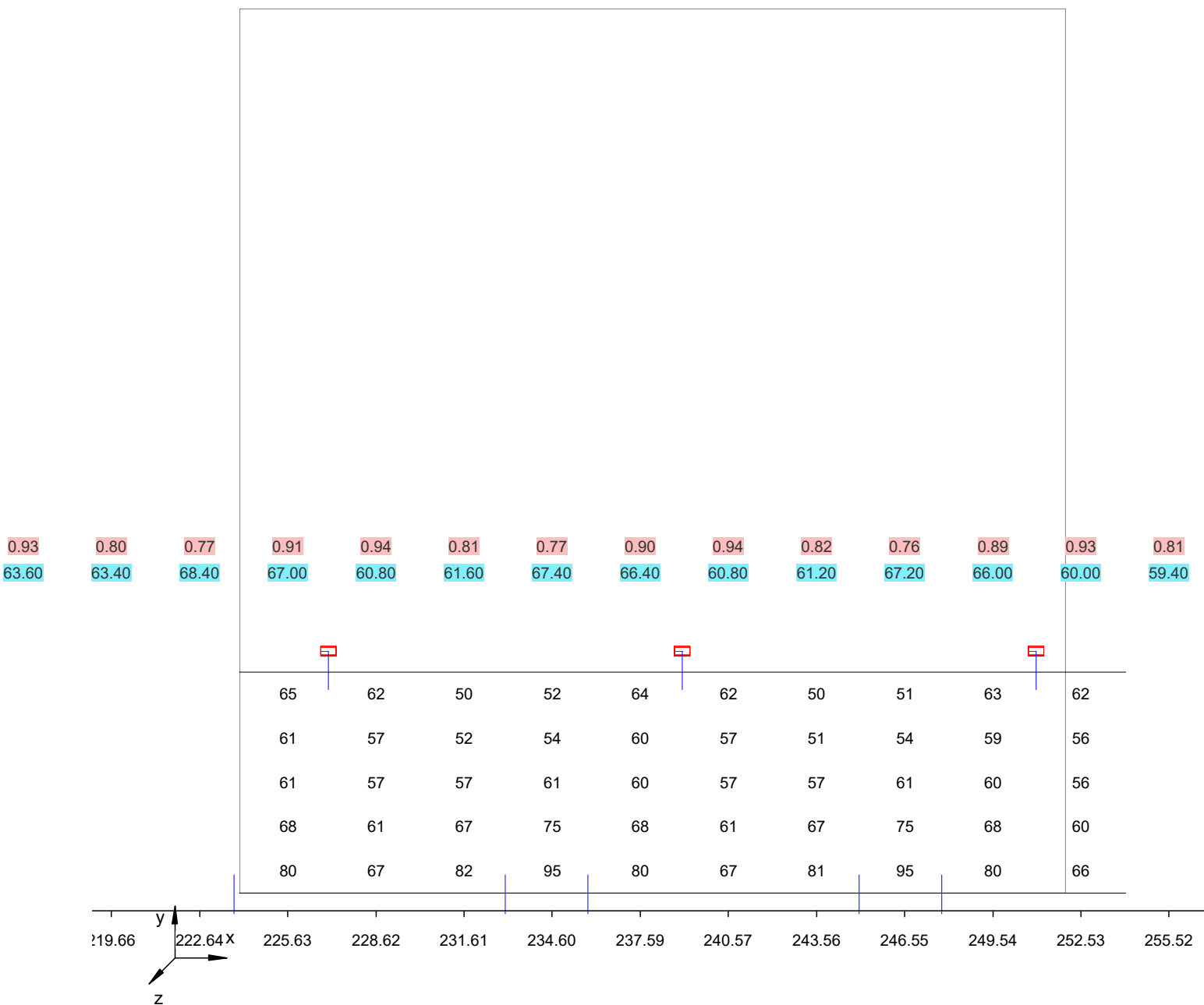
Parte 8 di 10



### 4.3 Valori di Illuminamento su: Carregg A

Scala 1/200

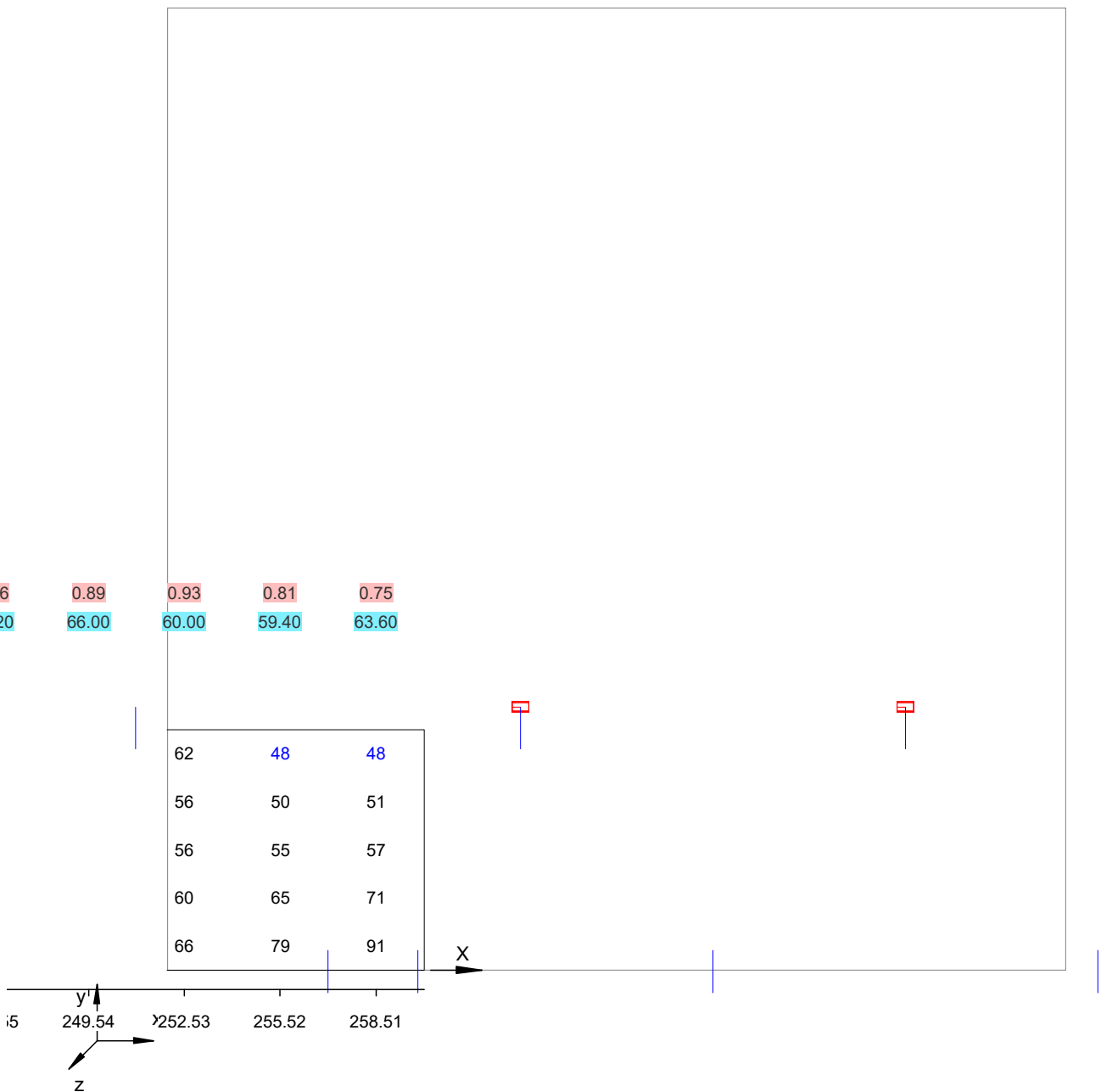
Parte 9 di 10



### 4.3 Valori di Illuminamento su: Carregg A

Scala 1/200

Parte 10 di 10

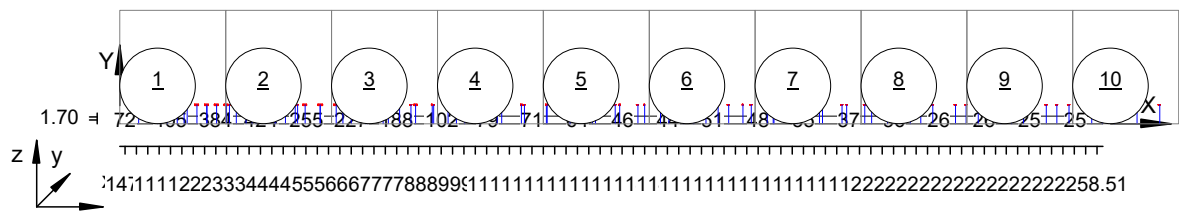


**4.4** Valori di Illuminamento su: Parete Destra 1

**4.4** Valori di Illuminamento su: Parete Destra 1

Scala 1/2000

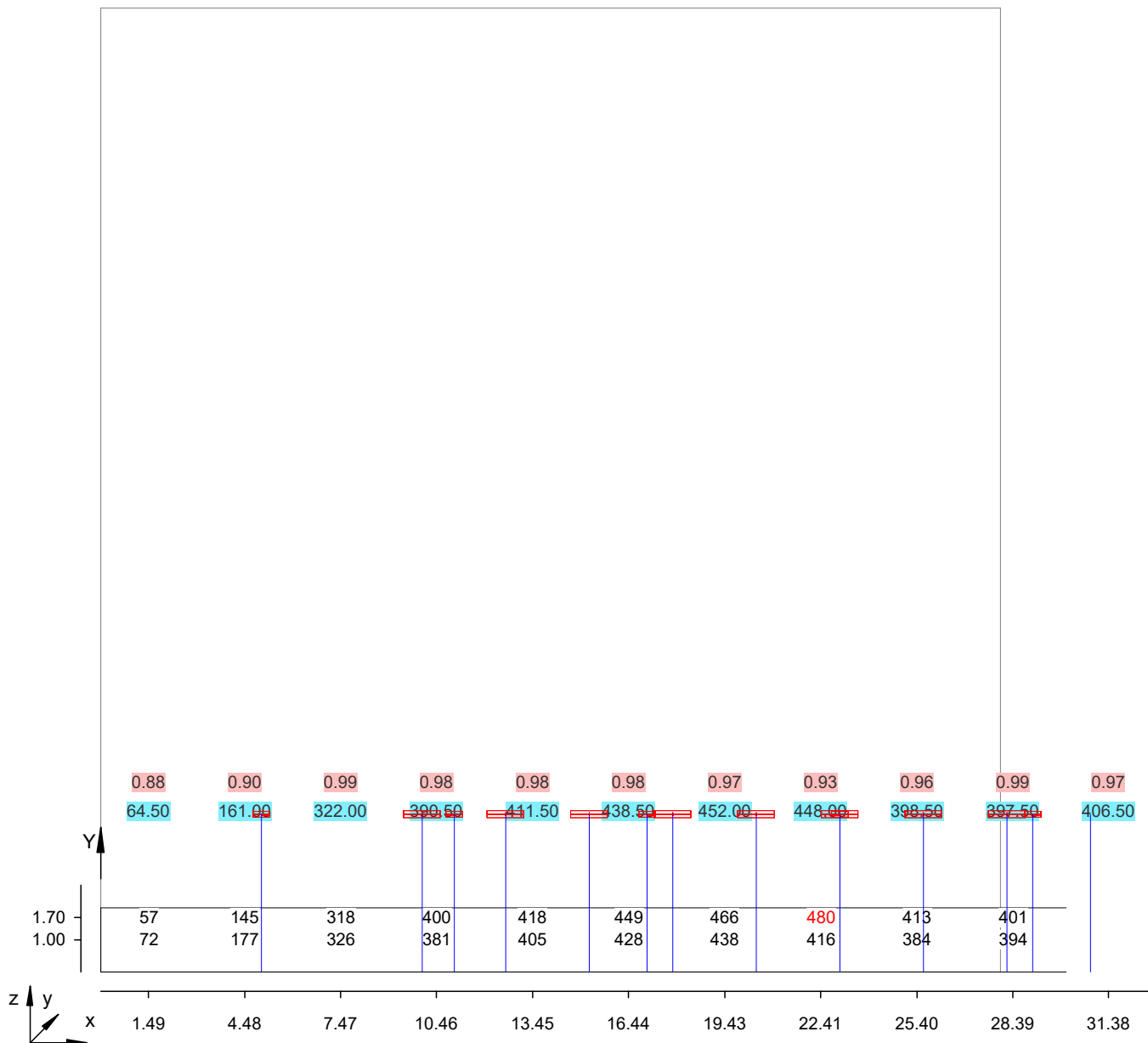
Totale Parti: 10



### 4.4 Valori di Illuminamento su: Parete Destra 1

Scala 1/200

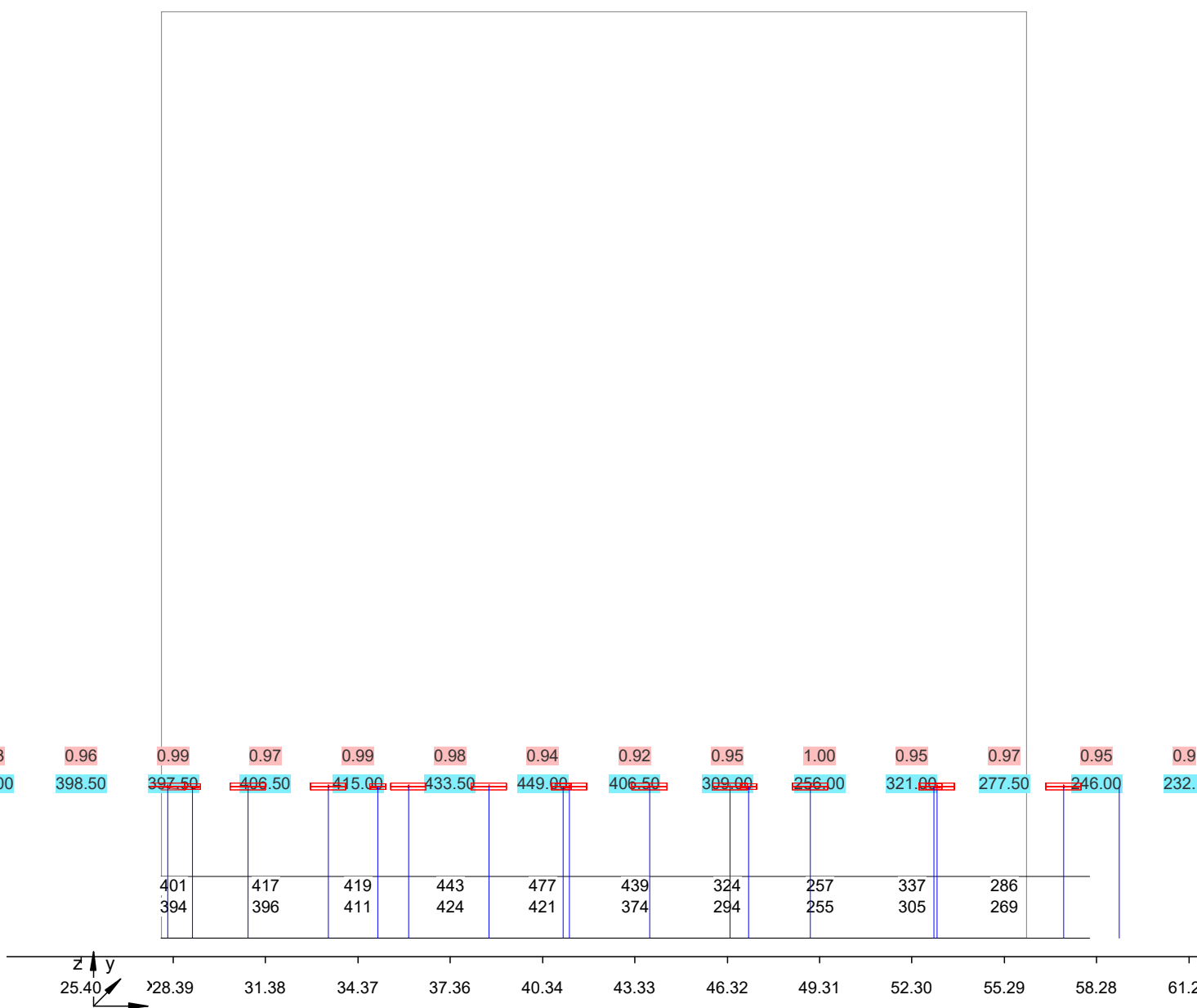
Parte 1 di 10



### 4.4 Valori di Illuminamento su: Parete Destra 1

Scala 1/200

Parte 2 di 10

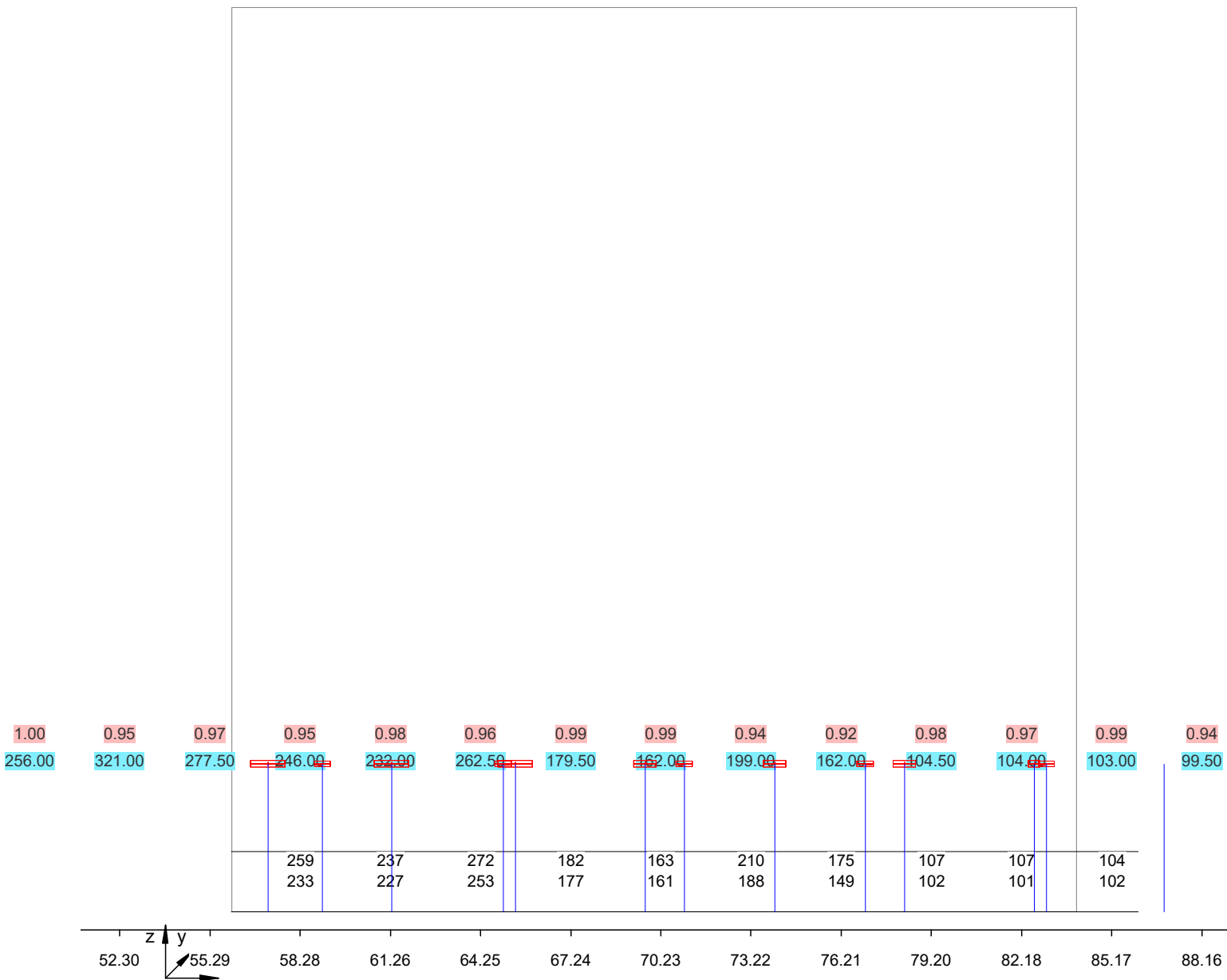




### 4.4 Valori di Illuminamento su: Parete Destra 1

Scala 1/200

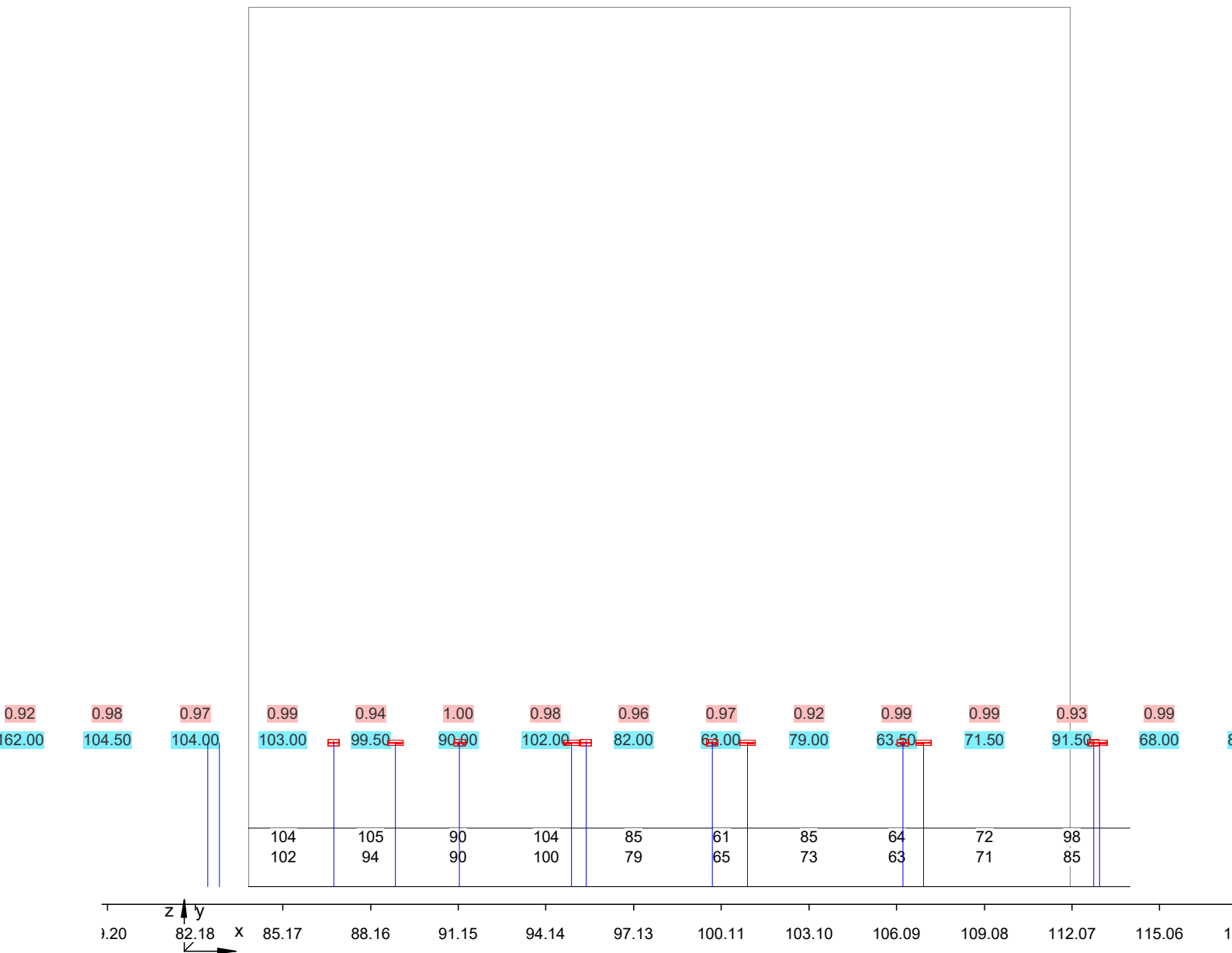
Parte 3 di 10



### 4.4 Valori di Illuminamento su: Parete Destra 1

Scala 1/200

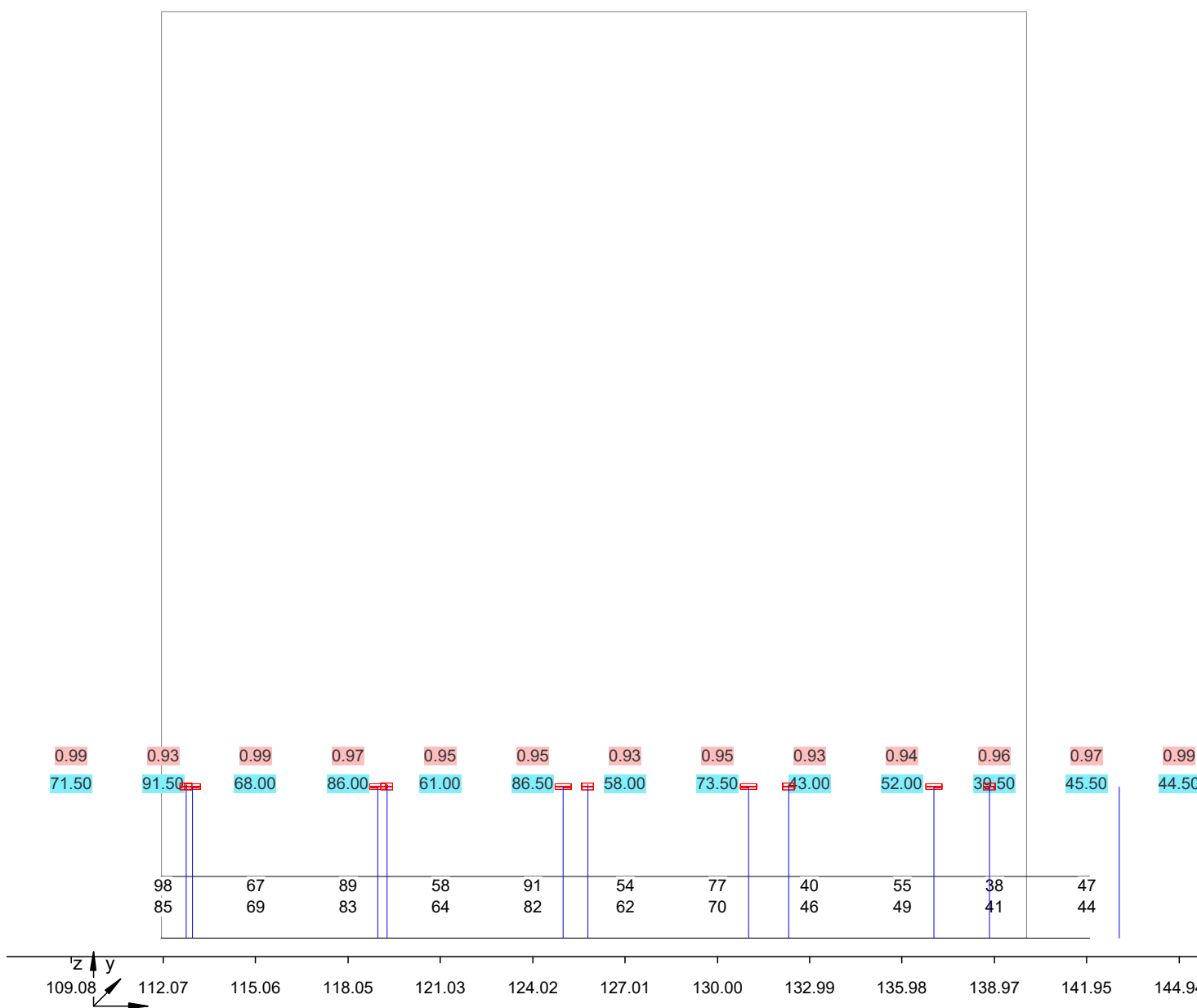
Parte 4 di 10



### 4.4 Valori di Illuminamento su: Parete Destra 1

Scala 1/200

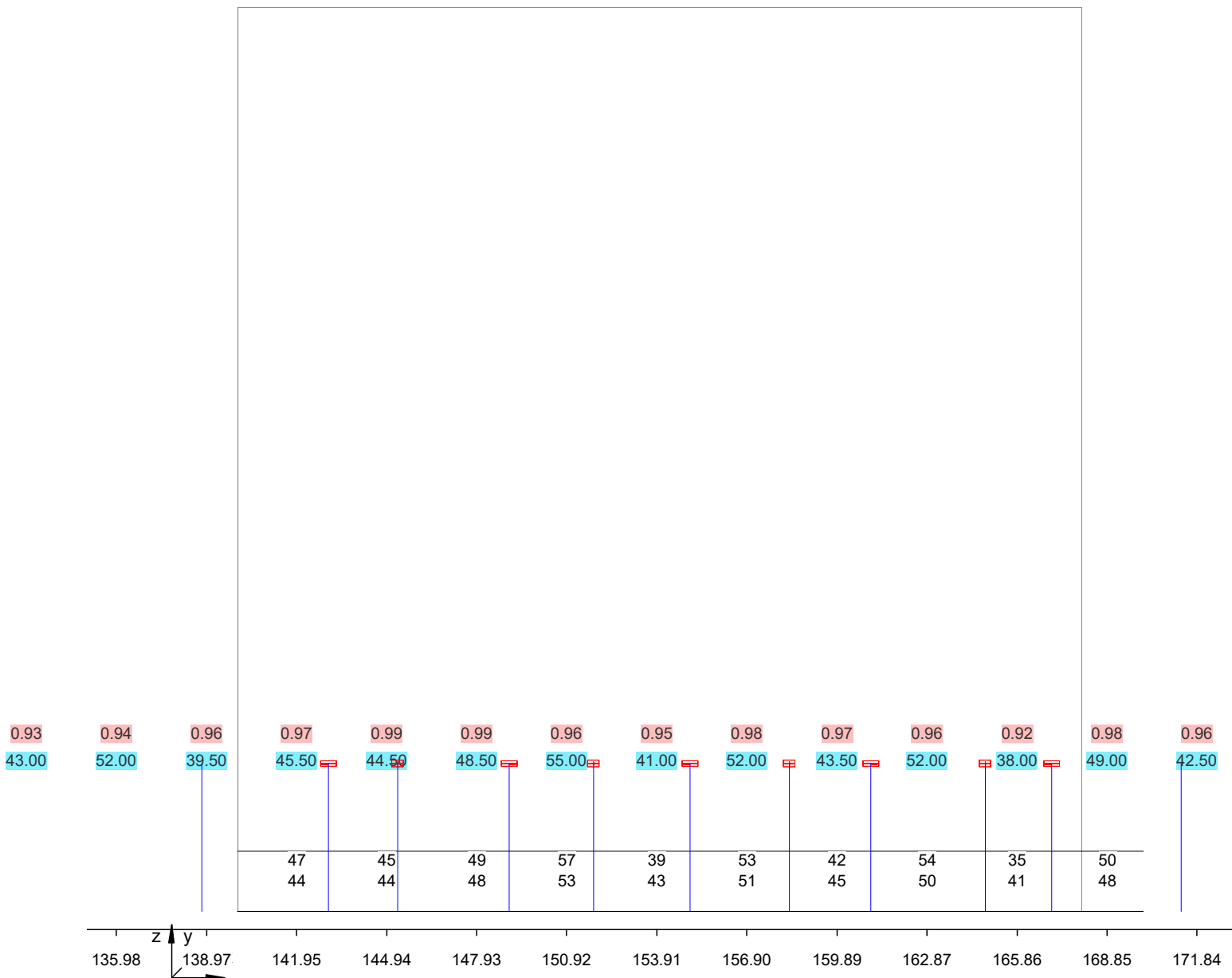
Parte 5 di 10



### 4.4 Valori di Illuminamento su: Parete Destra 1

Scala 1/200

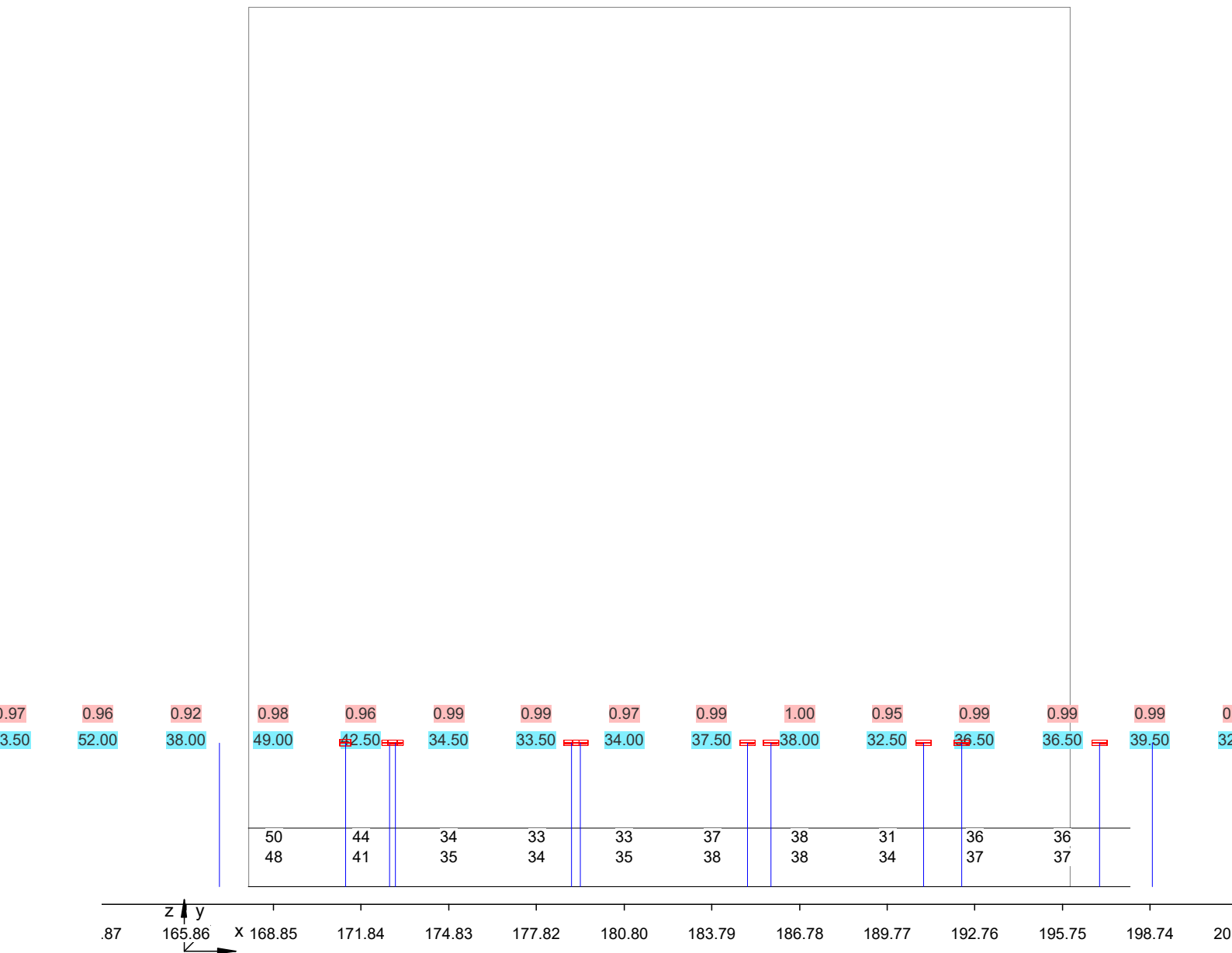
Parte 6 di 10



### 4.4 Valori di Illuminamento su: Parete Destra 1

Scala 1/200

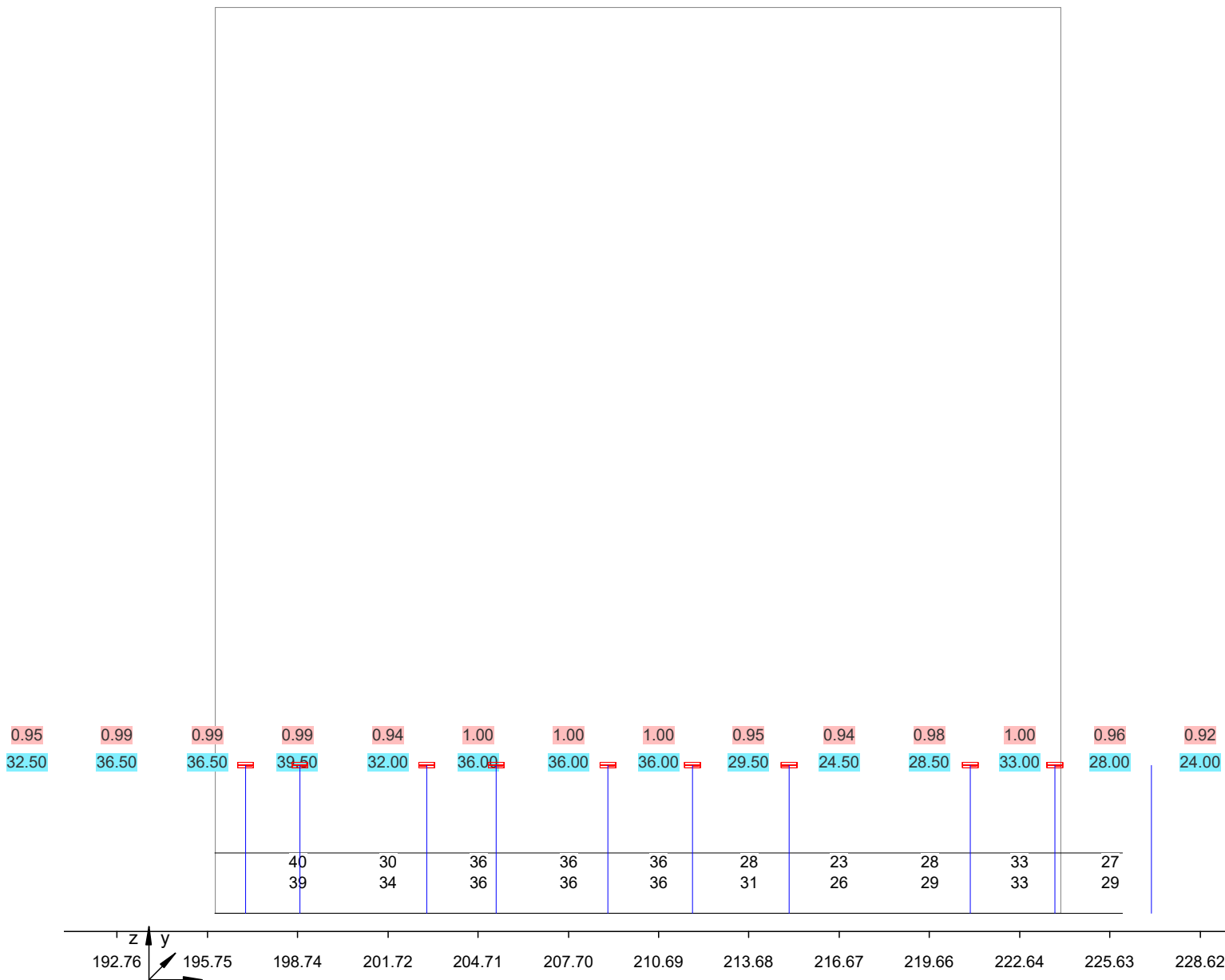
Parte 7 di 10



### 4.4 Valori di Illuminamento su: Parete Destra 1

Scala 1/200

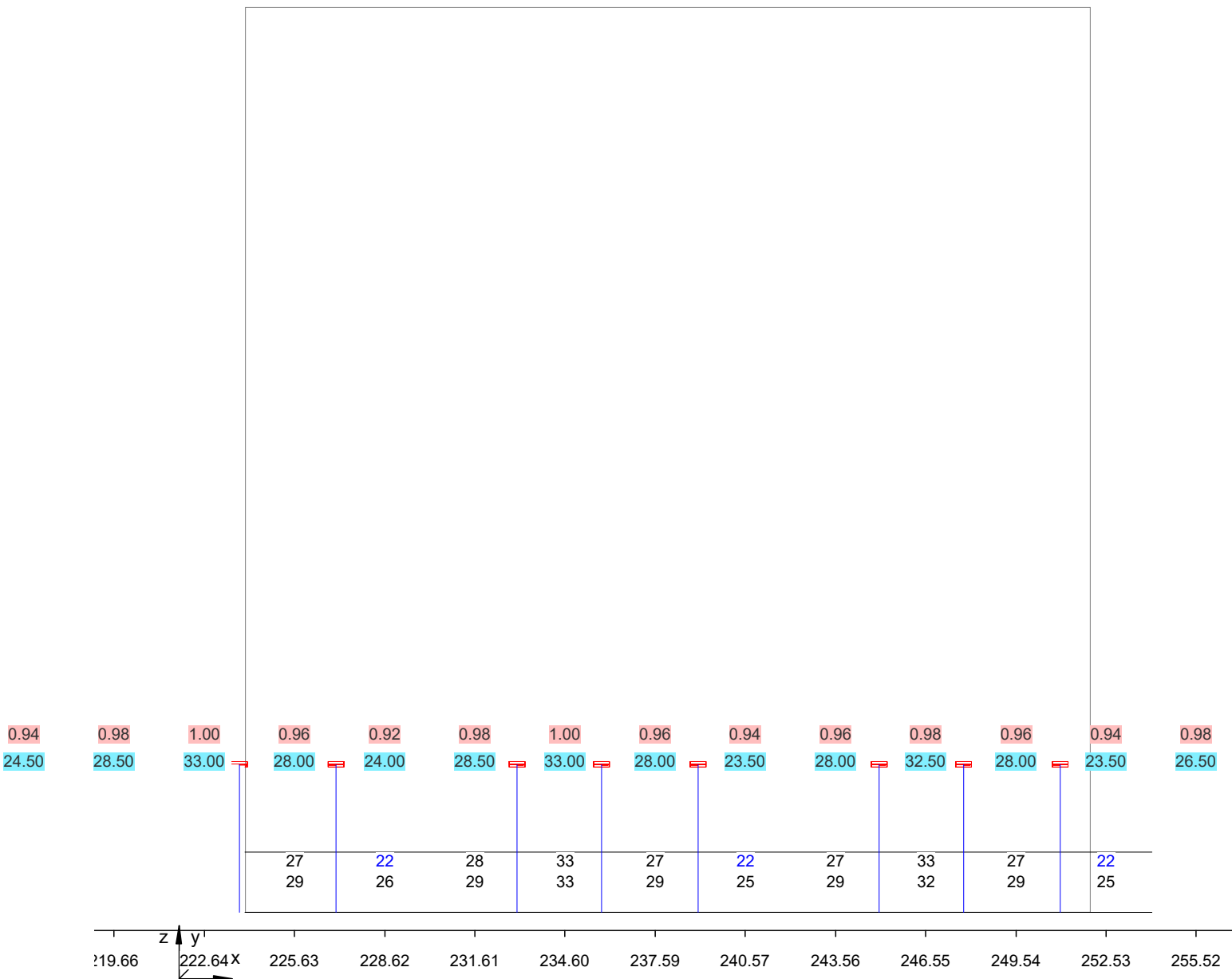
Parte 8 di 10



### 4.4 Valori di Illuminamento su: Parete Destra 1

Scala 1/200

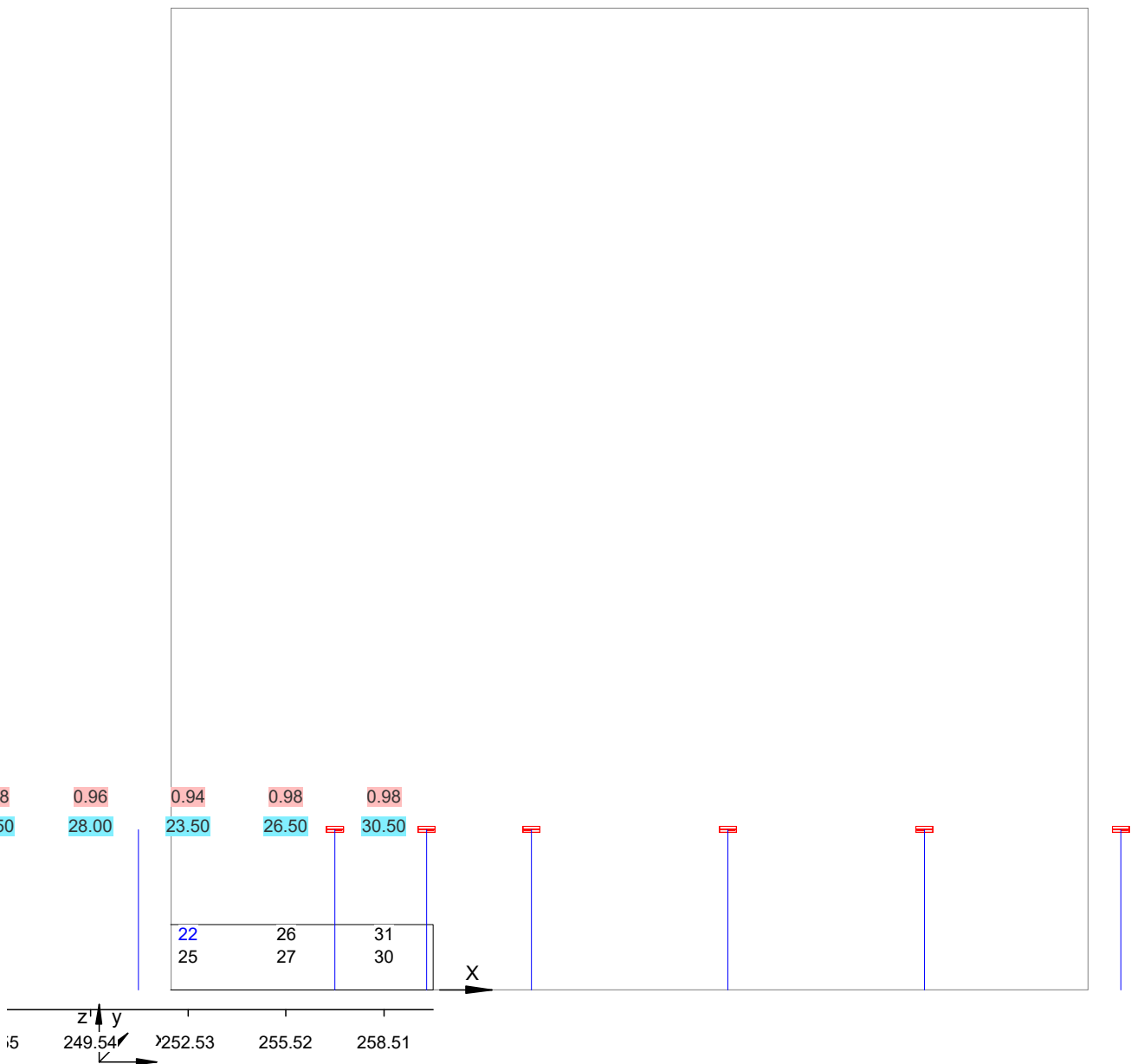
Parte 9 di 10



### 4.4 Valori di Illuminamento su: Parete Destra 1

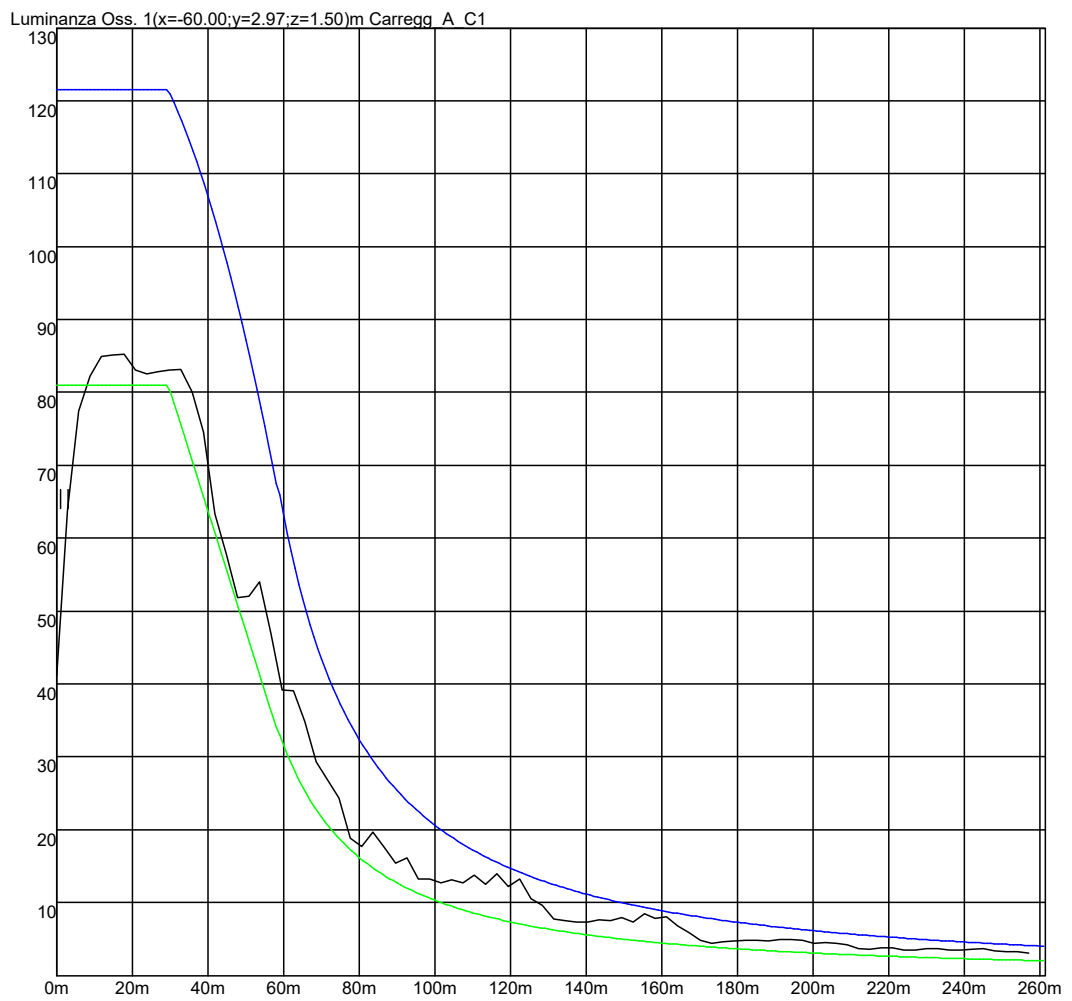
Scala 1/200

Parte 10 di 10





**4.5** Curva Luminanza Oss. 1(x=-60.00;y=2.97;z=1.50)m



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<b>Informazioni Generali</b>	<b>1</b>
<b>1. Dati Riepilogativi Progetto</b>	
1.1 Informazioni Area	2
<b>2. Viste Progetto</b>	
2.1 Vista 2D in Pianta	3
2.2 Vista Laterale	4
2.3 Vista Frontale	5
<b>3. Dati Riepilogativi Apparecchi</b>	
3.1 Informazioni Apparecchi/Rilievi	6
3.2 Informazioni Lampade	6
3.3 Tabella Riepilogativa Apparecchi	6
3.4 Tabella Riepilogativa Puntamenti	8
<b>4. Tabella Risultati</b>	
4.1 Valori delle Luminanze su: Carregg_A_C1 Oss. 1(x=-60.00;y=2.97;z=1.50)m	10
4.2 Valori delle Luminanze su: Parete_Destra (x=-60.00;y=2.97;z=1.50)m ---> (x=30.00;y=2.97;z=0.00)m	21
4.3 Valori di Illuminamento su: Carregg_A	32
4.4 Valori di Illuminamento su: Parete_Destra_1	43
4.5 Curva Luminanza Oss. 1(x=-60.00;y=2.97;z=1.50)m	54

CARREGGIATA

PROGRESSIVA	Y1	Y2	Y3
1,49	65,09	35,18	23,01
4,48	101,41	53,51	36,31
7,47	118,47	67,29	46,63
10,46	123,18	72,14	51,22
13,45	126,28	74,38	54,24
16,44	125,79	75,55	54,16
19,43	126,34	75,56	53,75
22,41	123,16	73,85	52,28
25,40	121,09	74,41	52,03
28,39	123,21	73,03	52,35
31,38	123,08	72,89	53,06
34,37	122,15	73,58	53,75
37,36	116,50	71,51	51,98
40,35	109,24	66,32	48,19
43,33	91,61	56,97	41,48
46,32	82,11	52,50	38,82
49,31	74,39	46,67	34,46
52,30	77,46	45,41	33,29
55,29	78,61	48,46	34,84
58,28	66,87	42,67	31,32
61,26	56,70	34,13	26,75
64,25	57,18	34,99	25,02
67,24	49,59	31,50	23,39
70,23	41,82	26,36	19,78
73,22	39,49	23,67	17,24
76,21	33,89	22,64	16,60
79,20	26,40	17,28	12,82
82,18	28,18	15,04	11,75
85,17	28,02	17,93	12,95
88,16	24,72	16,19	11,98
91,15	22,19	13,60	10,51
94,14	23,17	14,55	10,56
97,13	18,35	12,08	9,35
100,12	19,74	11,53	8,37
103,10	18,31	11,31	8,53
106,09	18,71	11,73	8,79
109,08	18,42	11,22	8,44
112,07	19,74	12,52	8,98
115,06	18,17	10,92	8,29
118,05	20,10	12,43	9,19
121,03	18,32	10,52	7,67
124,02	18,56	12,22	8,95
127,01	15,61	9,38	6,69
130,00	13,01	8,95	6,94
132,99	11,10	6,97	5,20
135,98	10,51	6,86	5,21
138,97	10,41	6,62	4,98
141,95	10,18	6,59	5,10
144,94	10,67	6,81	5,32
147,93	10,73	6,73	5,11
150,92	11,09	7,15	5,50
153,91	10,61	6,43	5,05
156,90	11,89	7,64	5,72
159,89	11,78	6,88	4,92
162,87	11,33	7,37	5,55
165,86	9,98	6,05	4,37
168,85	7,94	5,49	4,28
171,84	6,76	4,52	3,34
174,83	6,11	4,10	3,14
177,82	6,29	4,25	3,22
180,81	6,44	4,29	3,29
183,79	6,72	4,54	3,36
186,78	6,54	4,45	3,40
189,77	6,38	4,36	3,39
192,76	6,66	4,52	3,50
195,75	6,71	4,56	3,47
198,74	6,54	4,52	3,42
201,72	5,93	4,11	3,22
204,71	5,99	4,15	3,28
207,70	5,97	4,05	3,15
210,69	5,57	3,89	3,00
213,68	4,90	3,45	2,77
216,67	4,83	3,32	2,73
219,66	5,13	3,46	2,71
222,64	5,09	3,50	2,70
225,63	4,64	3,25	2,58
228,62	4,66	3,19	2,59
231,61	4,98	3,34	2,62
234,60	5,01	3,45	2,63
237,59	4,63	3,22	2,55
240,58	4,60	3,17	2,58
243,56	4,91	3,32	2,61
246,55	4,94	3,42	2,62
249,54	4,52	3,14	2,54
252,53	4,29	3,04	2,50
255,52	4,25	3,04	2,40
258,51	3,92	2,93	2,37

CARREGGIATA

Lm	Ut	VERIFICA Ut
41,09	0,56	verificato
63,74	0,57	verificato
77,46	0,60	verificato
82,18	0,62	verificato
84,96	0,64	verificato
85,16	0,64	verificato
85,22	0,63	verificato
83,10	0,63	verificato
82,51	0,63	verificato
82,86	0,63	verificato
83,01	0,64	verificato
83,16	0,65	verificato
79,99	0,65	verificato
74,58	0,65	verificato
63,35	0,65	verificato
57,81	0,67	verificato
51,84	0,66	verificato
52,05	0,64	verificato
53,97	0,65	verificato
46,95	0,67	verificato
39,19	0,68	verificato
39,06	0,64	verificato
34,83	0,67	verificato
29,32	0,67	verificato
26,80	0,64	verificato
24,37	0,68	verificato
18,83	0,68	verificato
17,66	0,67	verificato
19,63	0,66	verificato
17,63	0,68	verificato
15,43	0,68	verificato
16,09	0,66	verificato
13,26	0,70	verificato
13,21	0,63	verificato
12,72	0,67	verificato
13,08	0,67	verificato
12,69	0,66	verificato
13,75	0,65	verificato
12,46	0,67	verificato
13,91	0,66	verificato
12,17	0,63	verificato
13,24	0,68	verificato
10,56	0,63	verificato
9,63	0,72	verificato
7,76	0,67	verificato
7,53	0,69	verificato
7,34	0,68	verificato
7,29	0,70	verificato
7,60	0,70	verificato
7,53	0,68	verificato
7,91	0,70	verificato
7,36	0,69	verificato
8,42	0,68	verificato
7,86	0,63	verificato
8,08	0,69	verificato
6,80	0,64	verificato
5,90	0,72	verificato
4,87	0,69	verificato
4,45	0,71	verificato
4,59	0,70	verificato
4,67	0,70	verificato
4,87	0,69	verificato
4,80	0,71	verificato
4,71	0,72	verificato
4,90	0,72	verificato
4,91	0,71	verificato
4,83	0,71	verificato
4,42	0,73	verificato
4,48	0,73	verificato
4,39	0,72	verificato
4,15	0,72	verificato
3,70	0,75	verificato
3,63	0,75	verificato
3,77	0,72	verificato
3,77	0,72	verificato
3,49	0,74	verificato
3,48	0,75	verificato
3,64	0,72	verificato
3,70	0,71	verificato
3,47	0,73	verificato
3,45	0,75	verificato
3,61	0,72	verificato
3,66	0,72	verificato
3,40	0,75	verificato
3,28	0,76	verificato
3,23	0,74	verificato
3,07	0,77	verificato

PARETE DX

FILA 1m	FILA 1,7m	VERIFICA 60%	Ut	VERIFICA Ut
9,14	7,24	verificato	0,88	verificato
22,51	18,42	verificato	0,90	verificato
41,48	40,53	verificato	0,99	verificato
48,51	50,92	verificato	0,98	verificato
51,57	53,17	verificato	0,98	verificato
54,55	57,17	verificato	0,98	verificato
55,76	59,34	verificato	0,97	verificato
52,94	61,15	verificato	0,93	verificato
48,91	52,64	verificato	0,96	verificato
50,20	51,09	verificato	0,99	verificato
50,38	53,06	verificato	0,97	verificato
52,37	53,37	verificato	0,99	verificato
54,03	56,46	verificato	0,98	verificato
53,66	60,67	verificato	0,94	verificato
47,62	55,88	verificato	0,92	verificato
37,41	41,27	verificato	0,95	verificato
32,52	32,77	verificato	1,00	verificato
38,89	42,91	verificato	0,95	verificato
34,19	36,40	verificato	0,97	verificato
29,70	33,01	verificato	0,95	verificato
28,91	30,13	verificato	0,98	verificato
32,27	34,67	verificato	0,96	verificato
22,59	23,16	verificato	0,99	verificato
20,46	20,73	verificato	0,99	verificato
23,99	26,73	verificato	0,95	verificato
19,01	22,29	verificato	0,92	verificato
12,95	13,59	verificato	0,98	verificato
12,82	13,81	verificato	0,97	verificato
13,02	13,25	verificato	0,99	verificato
11,95	13,41	verificato	0,94	verificato
11,50	11,50	verificato	1,00	verificato
12,78	13,30	verificato	0,98	verificato
10,04	10,88	verificato	0,96	verificato
8,34	7,80	verificato	0,97	verificato
9,28	10,78	verificato	0,93	verificato
8,09	8,19	verificato	0,99	verificato
9,04	9,19	verificato	0,99	verificato
10,81	12,54	verificato	0,93	verificato
8,79	8,53	verificato	0,98	verificato
10,52	11,28	verificato	0,97	verificato
8,21	7,43	verificato	0,95	verificato
10,46	11,63	verificato	0,95	verificato
7,84	6,93	verificato	0,94	verificato
8,90	9,83	verificato	0,95	verificato
5,84	5,09	verificato	0,93	verificato
6,28	7,04	verificato	0,94	verificato
5,25	4,86	verificato	0,96	verificato
5,64	6,02	verificato	0,97	verificato
5,63	5,71	verificato	0,99	verificato
6,08	6,21	verificato	0,99	verificato
6,75	7,21	verificato	0,97	verificato
5,43	5,00	verificato	0,96	verificato
6,48	6,70	verificato	0,98	verificato
5,72	5,32	verificato	0,96	verificato
6,43	6,85	verificato	0,97	verificato
5,18	4,41	verificato	0,92	verificato
6,10	6,42	verificato	0,97	verificato
5,27	5,59	verificato	0,97	verificato
4,46	4,34	verificato	0,99	verificato
4,38	4,17	verificato	0,97	verificato
4,48	4,22	verificato	0,97	verificato
4,82	4,74	verificato	0,99	verificato
4,83	4,81	verificato	1,00	verificato
4,31	3,92	verificato	0,95	verificato
4,68	4,63	verificato	0,99	verificato
4,70	4,60	verificato	0,99	verificato
4,95	5,07	verificato	0,99	verificato
4,27	3,86	verificato	0,95	verificato
4,62	4,54	verificato	0,99	verificato
4,62	4,56	verificato	0,99	verificato
4,59	4,58	verificato	1,00	verificato
3,89	3,53	verificato	0,95	verificato
3,34	2,91	verificato	0,93	verificato
3,70	3,60	verificato	0,99	verificato
4,18	4,20	verificato	1,00	verificato
3,70	3,40	verificato	0,96	verificato
3,25	2,85	verificato	0,93	verificato
3,67	3,53	verificato	0,98	verificato
4,14	4,17	verificato	1,00	verificato
3,70	3,40	verificato	0,96	verificato
3,24	2,86	verificato	0,94	verificato
3,63	3,47	verificato	0,98	verificato
4,12	4,16	verificato	0,99	verificato
3,68	3,39	verificato	0,96	verificato
3,18	2,80	verificato	0,94	verificato
3,47	3,33	verificato	0,98	verificato
3,87	3,89	verificato	1,00	verificato

GALLERIA ELEVAZ 1

