

0 werkmep. 10cm.
bolgaas.

duunne ordner mcke

E L C O M A	KWALITEITSLAB. OSC. BZN. PHILIPS HEERLEN		
	KHR-89/VL-167	1	1984.01.18

LINEARITEIT VAN 26D10

1. INLEIDING : n = 5 stuks.

Meetkonditie = $V_k/g^2 = 1.200 \text{ V}$

$V_s/k = 12 \text{ kV}$

Meetmal = 10 x 8 div. (1 div. = 6 mm)

= 60 x 48 mm

Nuttig schermoppervlak = 70 x 56 mm (1 div. = 7 mm)

2. MEETRESULTAAT : Bijlage 1 t/m 6.

3. KONKLUSIE : In X-richting zeer slechte lineariteit, let op gereduceerde meetmalafmeting.

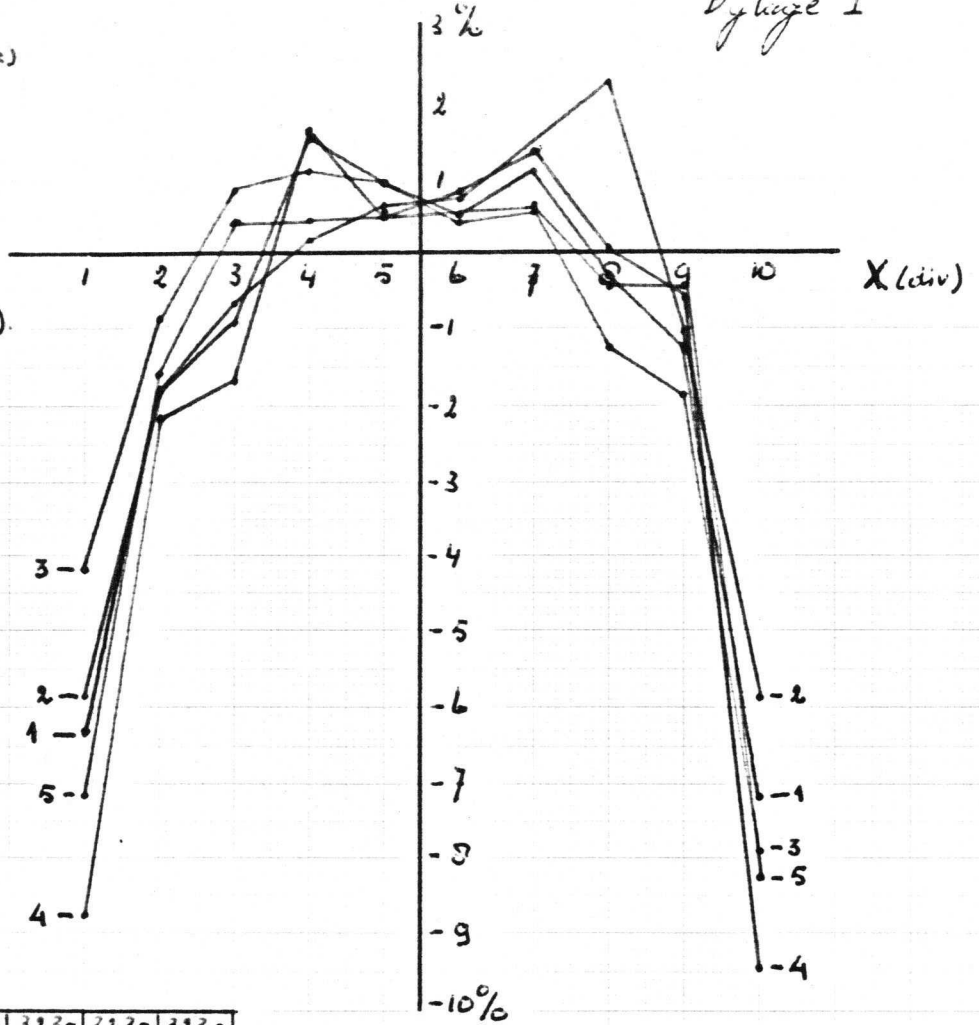
J. Vleeschouwers

Kopie: H.H. Koppelmans
Mordang
Warnier
Sieben
Schröder
Zeppenfeld
Schols

Typ: 10 DIC
(gem. inw. raster)

Bylage 1

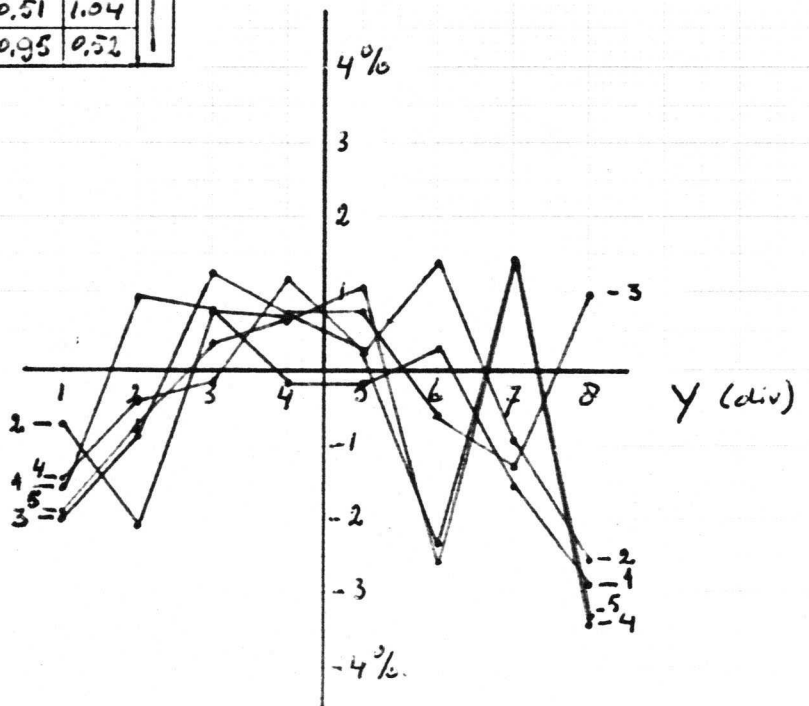
Lin. gem. 80% → f'(div)



Buis nr:	323-653 1	323-679 2	323-691 3	323-686 4	323-697 5
Lin. max X	9.4	8.65	9.77	13.2	9.7
Lin max Y	3.95	4.05	3.23	5.03	4.91
Lin(25-75%) X1	1.02	0.86	0.38	1.03	0.46
Lin(25-75%) X2	0.53	0.01	0.89	0.45	0.46
Lin(25-75%) Y1	0.3	0	1.12	0.51	1.04
Lin(25-75%) Y2	-0.08	0.92	0.37	0.95	0.52

1 div = 6 mm !

Lin. gem. 75% → f'(div)



18-1-84
P. G. Schow.

Meetinstelling +

Levensduur instelling. 26 D10.

0-
werkmap
10 cm
bolgas

- $V_k = 1.2 \text{ kV}$
- $V_{\text{scherm/kath}} = 12 \text{ kV}$.
- $I_{\text{nav}} = 5 \mu\text{A}$
- $R = 4 \times 4 \text{ cm}^2$.

(Meten m.b.t. Kanon: conform D14-370 →)

- $I_{b \times} (V_d = \overset{25}{30} \text{ V})$ $R = 40 \times 40 \text{ mm}^2$

- Lum. $R = 4 \times 4$, $I_{\text{nav}} = 5 \mu\text{A}$

- Fot. schrijfsnelheid: niet meten.

Bestaat er een targetspec?

Meeteis concept: opstellen: HHH Vleeschouwers/
Koppelmanns.

→ Indien niet accoord, dan z.s.m.
reactie.

[HH Koppelmanns
Schröder
Zeppenfeld

11/1-84

HH Schols
Winands
Vleeschouwers

Sieben ad

26D10

glas dilite 3.99 mm

14kV 50 uA

26D10

X-RAY report on Project:
26D10

Testresults of the: SCREEN

Details about the GLASS:

3270
Min. MU glass = 10.4
Real MU glass = 10.7
Exponent X = 2.76
Min. thickness = 3.7

Date of test: 83-05-10

Tubenumber = 10
Corr. fact VICTOREEN = 1.13
Glass thickness = 3.99 mm

Table with 4 columns: KV, mR/hr, uA, mR/hr (5uA). Rows 16-23.

SCREEN SCREEN SCREEN SCREEN

16 kV TUBE X XMAX
NR (mR/hr) at 5 uA

1 10 .009 .023

MEAN X = .009 mR/hr
MEAN XMAX = .023 mR/hr
SIGMA X = .999 mR/hr
SIGMA XMAX = .999 mR/hr
XMAX+3sigmaXMAX = .300 mR/hr

17 kV TUBE X XMAX
NR (mR/hr) at 5 uA

1 10 .041 .091

MEAN X = .041 mR/hr
MEAN XMAX = .091 mR/hr
SIGMA X = .999 mR/hr
SIGMA XMAX = .999 mR/hr
XMAX+3sigmaXMAX = .300 mR/hr

18 kV TUBE X XMAX
NR (mR/hr) at 5 uA

1 10 .181 .361

MEAN X = .181 mR/hr
MEAN XMAX = .361 mR/hr
SIGMA X = .999 mR/hr
SIGMA XMAX = .999 mR/hr
XMAX+3sigmaXMAX = .300 mR/hr

19 kV TUBE X XMAX
NR (mR/hr) at 5 uA

1 10 .628 1.146

MEAN X = .628 mR/hr
MEAN XMAX = 1.146 mR/hr
SIGMA X = .999 mR/hr
SIGMA XMAX = .999 mR/hr
XMAX+3sigmaXMAX = .300 mR/hr

20 kV TUBE X XMAX
NR (mR/hr) at 5 uA

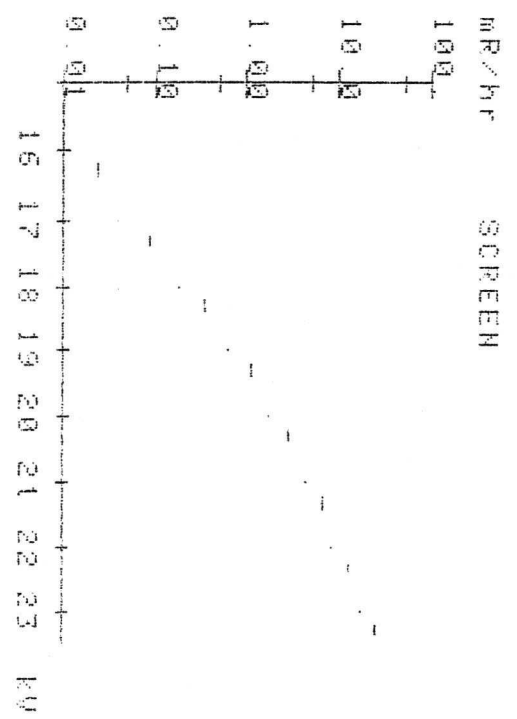
1 10 1.740 2.941

MEAN X = 1.740 mR/hr
MEAN XMAX = 2.941 mR/hr
SIGMA X = .999 mR/hr
SIGMA XMAX = .999 mR/hr
XMAX+3sigmaXMAX = .300 mR/hr

kV	TUBE NR	X (mR/hr)	XMAX at 5 μ A
22	10	4.266	6.767
MEAN X = 4.266 mR/hr			
MEAN XMAX = 6.767 mR/hr			
SIGMA X = .999 mR/hr			
SIGMA XMAX = .999 mR/hr			
XMAX+3 σ XMAX = .300 mR/hr			

22 kV	TUBE NR	X (mR/hr)	XMAX at 5 μ A
22	10	8.758	13.176
MEAN X = 8.758 mR/hr			
MEAN XMAX = 13.176 mR/hr			
SIGMA X = .999 mR/hr			
SIGMA XMAX = .999 mR/hr			
XMAX+3 σ XMAX = .300 mR/hr			

23 kV	TUBE NR	X (mR/hr)	XMAX at 5 μ A
23	10	17.063	24.545
MEAN X = 17.063 mR/hr			
MEAN XMAX = 24.545 mR/hr			
SIGMA X = .999 mR/hr			
SIGMA XMAX = .999 mR/hr			
XMAX+3 σ XMAX = .300 mR/hr			



X-RAY report on Project:
26010

Test results of the: SCREEN

Details about the GLASS:

B270
Min. MU glass = 10
Real MU glass = 10.7
Exponent X = 2.76
Min. thickness = 3.5

Date of test: 83-05-10

Tubenumber = 10
Corr. fact. VICTOREEN = 1.13
Glassthickness = 3.99 mm

KV	mR/hr	μ A	mR/hr(5 μ A)
16	.04	25.0	.009
17	.18	25.0	.041
18	.60	25.0	.181
19	2.70	25.0	.628
20	7.70	25.0	1.740
21	7.55	10.0	4.266
22	7.75	5.0	8.750
23	7.55	2.5	17.063

* SCREEN SCREEN SCREEN SCREEN *

16 kV	TUBE	X	XMAX
====	NR	(mR/hr)	at 5 μ A
1	10	.009	.051

MEAN X = .009 mR/hr
MEAN XMAX = .051 mR/hr
SIGMA X = .999 mR/hr
SIGMA XMAX = .999 mR/hr
XMAX+3 σ XMAX = .300 mR/hr

17 kV	TUBE	X	XMAX
====	NR	(mR/hr)	at 5 μ A
1	10	.041	.177

MEAN X = .041 mR/hr
MEAN XMAX = .177 mR/hr
SIGMA X = .999 mR/hr
SIGMA XMAX = .999 mR/hr
XMAX+3 σ XMAX = .300 mR/hr

18 kV	TUBE	X	XMAX
====	NR	(mR/hr)	at 5 μ A
1	10	.181	.641

MEAN X = .181 mR/hr
MEAN XMAX = .641 mR/hr
SIGMA X = .999 mR/hr
SIGMA XMAX = .999 mR/hr
XMAX+3 σ XMAX = .300 mR/hr

19 kV	TUBE	X	XMAX
====	NR	(mR/hr)	at 5 μ A
1	10	.628	1.881

MEAN X = .628 mR/hr
MEAN XMAX = 1.881 mR/hr
SIGMA X = .999 mR/hr
SIGMA XMAX = .999 mR/hr
XMAX+3 σ XMAX = .300 mR/hr

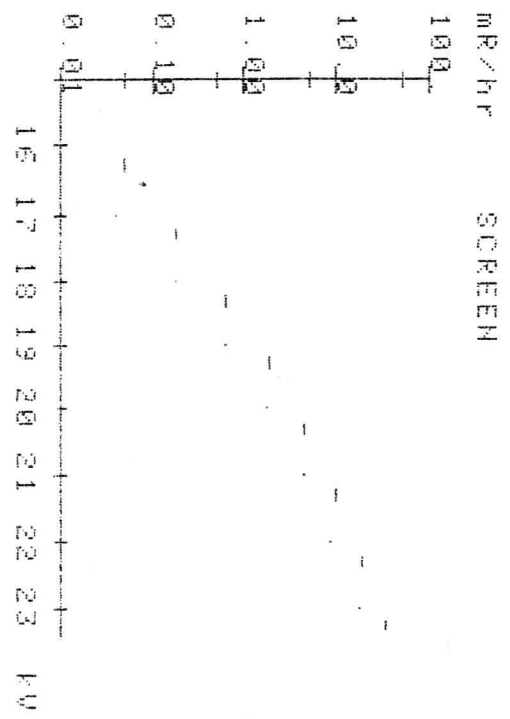
20 kV	TUBE	X	XMAX
====	NR	(mR/hr)	at 5 μ A
1	10	1.740	4.536

MEAN X = 1.740 mR/hr
MEAN XMAX = 4.536 mR/hr
SIGMA X = .999 mR/hr
SIGMA XMAX = .999 mR/hr
XMAX+3 σ XMAX = .300 mR/hr

kV	TUBE	X	XMAX
====	NR	(mR/hr)	at 5 μ A
1	10	4.266	9.908
MEAN X = 4.266 mR/hr			
MEAN XMAX = 9.908 mR/hr			
SIGMA X = .999 mR/hr			
SIGMA XMAX = .999 mR/hr			
XMAX+3 σ XMAX = .300 mR/hr			

22 kV	TUBE	X	XMAX
====	NR	(mR/hr)	at 5 μ A
1	10	8.758	18.464
MEAN X = 8.758 mR/hr			
MEAN XMAX = 18.464 mR/hr			
SIGMA X = .999 mR/hr			
SIGMA XMAX = .999 mR/hr			
XMAX+3 σ XMAX = .300 mR/hr			

23 kV	TUBE	X	XMAX
====	NR	(mR/hr)	at 5 μ A
1	10	17.063	33.144
MEAN X = 17.063 mR/hr			
MEAN XMAX = 33.144 mR/hr			
SIGMA X = .999 mR/hr			
SIGMA XMAX = .999 mR/hr			
XMAX+3 σ XMAX = .300 mR/hr			

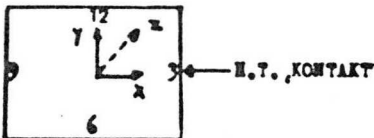


TEST: DATE: 26 Dec 10-5-83 BY Schols/leaps TYPE: 26 Dec
 GUNNO. : _____
 TRIAL : _____

EQUIPMENT

H.V.: METER/DIV. : _____
 SUPPLY : _____
 CURRENT: METER : _____
 SEARCH INSTR. : _____
 VICTORION 440 RPC : SERIAL NR.: 2389
 CALIBR. : _____

TESTMETHOD : _____
 SCREEN-GLASS : _____
 CONE-GLASS : _____
 BECK-GLASS : _____



HOTSPOTLOCATION (IN CM)
 SCREEN: X/Y IN CM WITH RESPECT TO SCREEN-CENTRE
 CONE : CLOCK + VALUE OF Z (IN CM).

SCREENPARAMETERS

MIN. T (MM) : _____ MM ACC. TO DRAWING/DOC.: _____
 MIN. β (CM⁻¹) : _____ ACC. TO DRAWING/DOC.: _____
 ACTUAL T : 4.96 MM → ?? 3.99mm.
 ACTUAL β : _____ CM⁻¹ (AT 0.6 I)

HOTSPOTLOCATION: X/Y: _____

CONEPARAMETERS

MIN. T (MM) : _____ MM ACC. TO DRAWING/DOC.: _____
 MIN. β (CM⁻¹) : _____ ACC. TO DRAWING/DOC.: _____
 ACTUAL T : _____ MM
 ACTUAL β : _____ CM⁻¹ (AT 0.6 I)

HOTSPOTLOCATION: _____ HRS.
 Z: _____ CM

MEASUREMENTS

VOLTAGE SCREEN - CATHODE	SCREEN			VOLTAGE SCREEN - CATHODE	CONE		
	ϵ MR/HR - BG - MR/HR	IS(UA)	CALC. MR/HR AT IS...UA		ϵ MR/HR - BG - MR/HR	IS(UA)	CALC. MR/HR AT IS...UA
16	0.14-0.04	0.04	25				
17	0.28-0.18	0.18	25				
18	0.8-0.21	0.2	25				
19	2.8-0.02	2.78	25				
20	7.75-0.05	7.70	25				
21	7.6-0.05	7.55	10				
22	7.8-0.05	7.75	5				
23	7.6-0.05	7.55	2.5				

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