

FOTOGRAFIE VOOR BEGINNERS



1

WELKOM



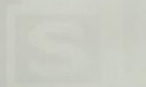


AUTO



X

SLOW
REAR



RAW
FINE

0.6

TAN

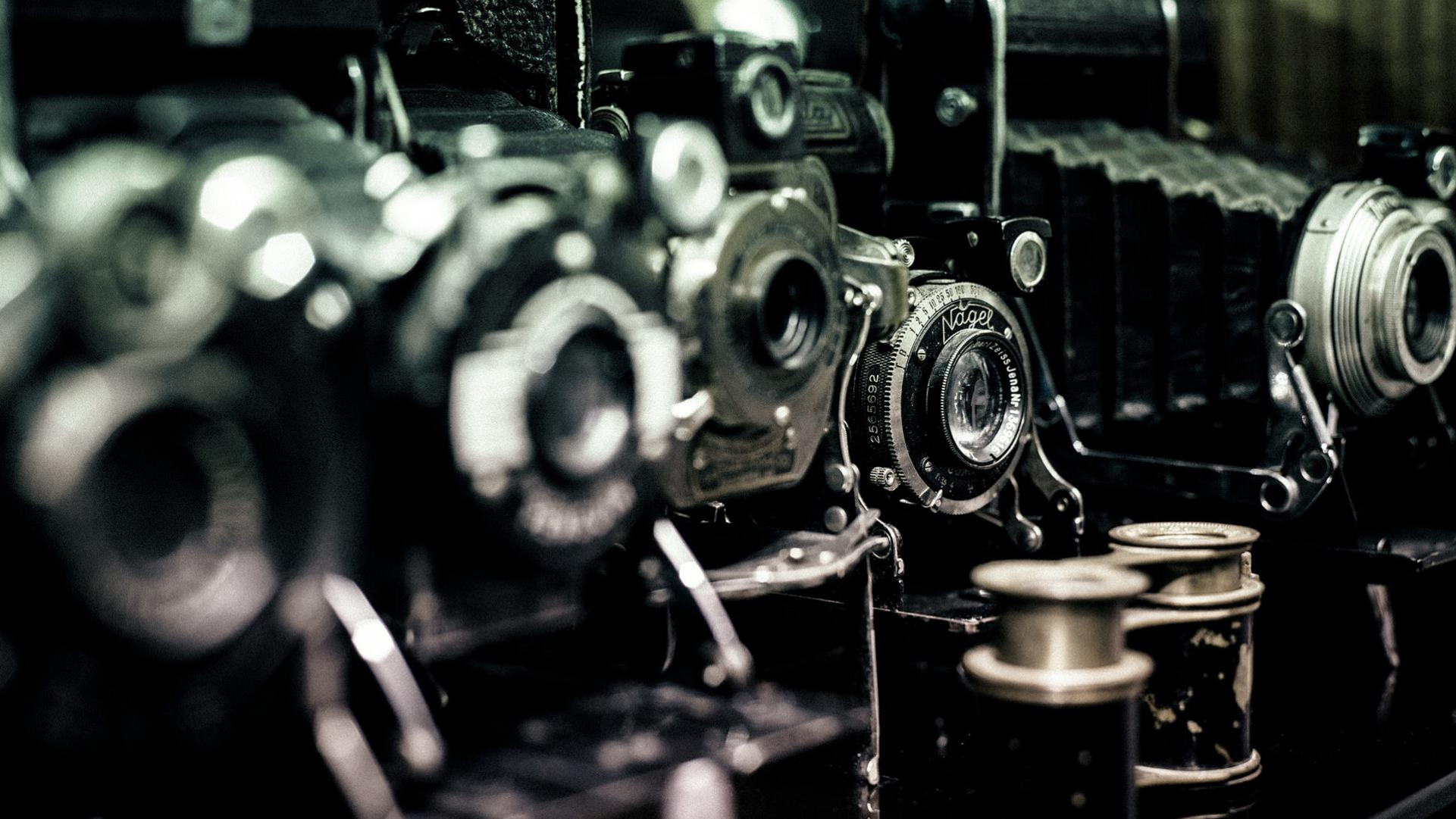
AUTO

1.1

Camera's

RAW
FINE









AUTO

RAW+
BASIC

RAW+
FINE



3D

AF-A

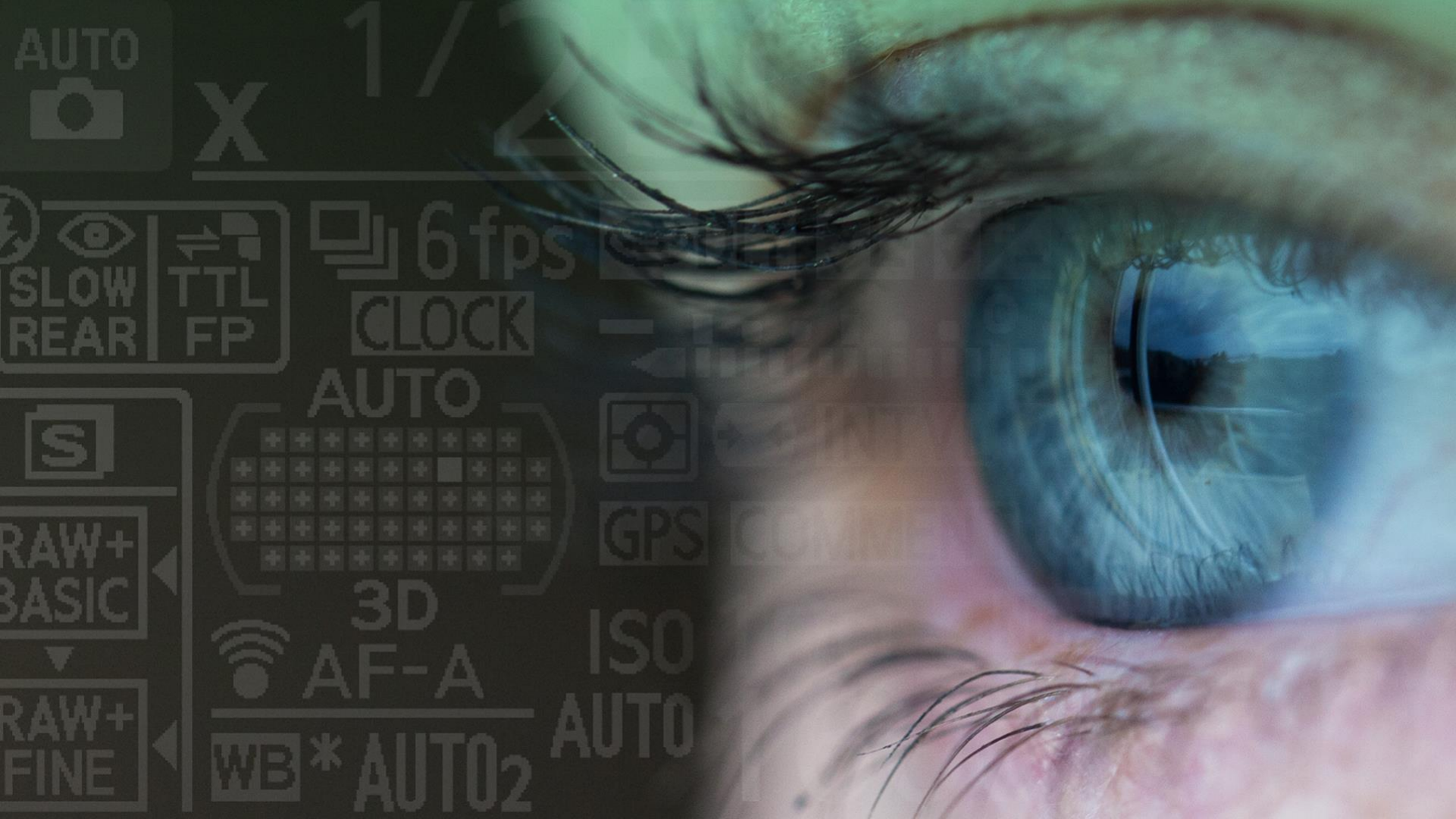
ISO

AUTO

WB* AUTO2

FOOT

.0]k



AUTO



X

1/2

6 fps

CLOCK

SLOW REAR

TTL FP

S

AUTO



GPS

RAW+ BASIC

3D

AF-A

ISO

AUTO

RAW+ FINE



WB*

AUTO2

1.2

Licht en belichting







DO WHAT YOU
LOVE
WHAT YOU DO

Y

1 3

BACK TO SCHOOL

SECOND ANNIERS
LIMITED EDITION
Camomil
THE ORIGINAL CHINESE
MIX
TWO THOUSAND AND FIFTY

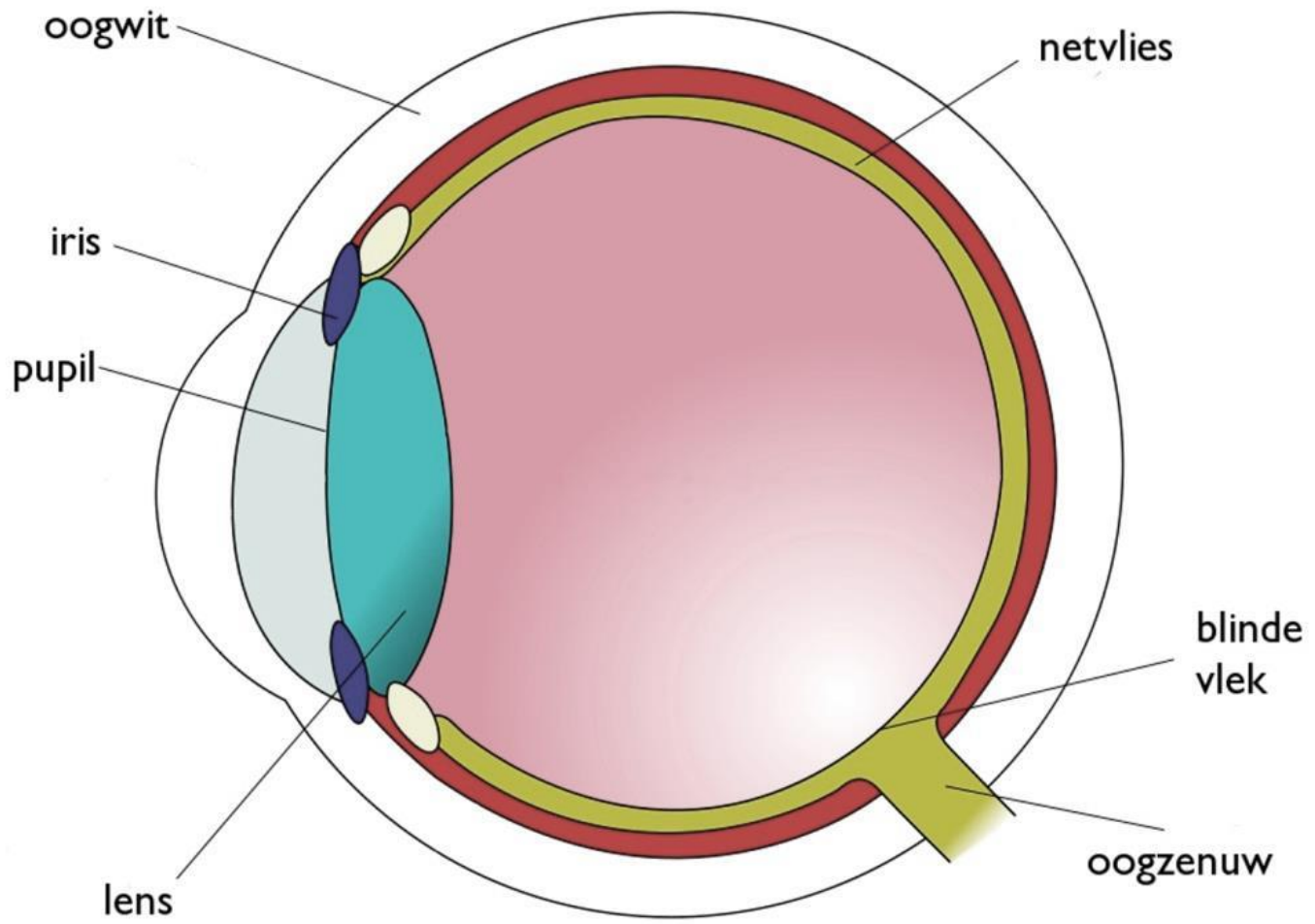
Camomil

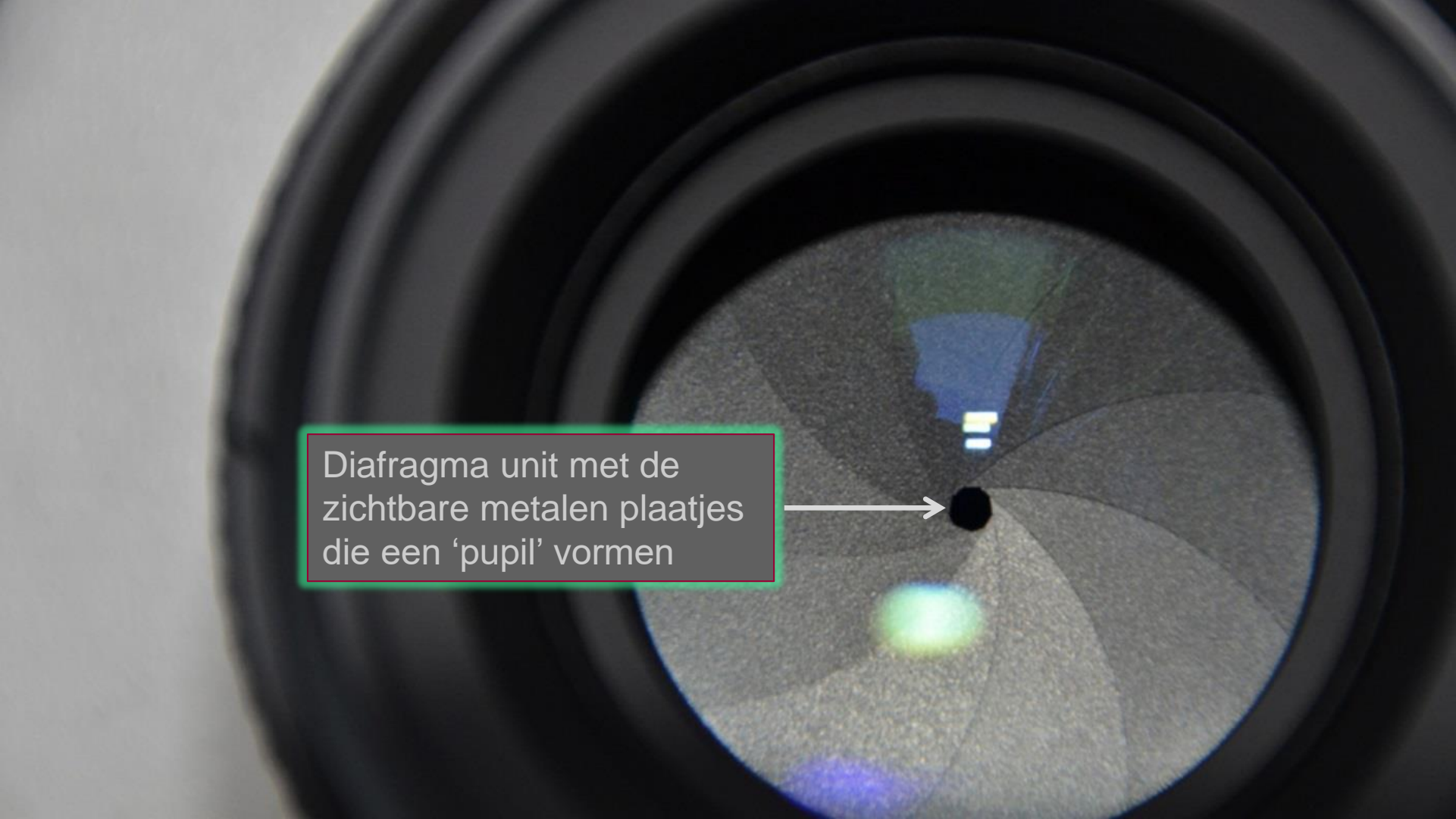
Zippo
Zippo's
BARBERShop
Zippo Diner
100% CIGARETTES
MADE IN THE U.S.A.

Vaseline
99

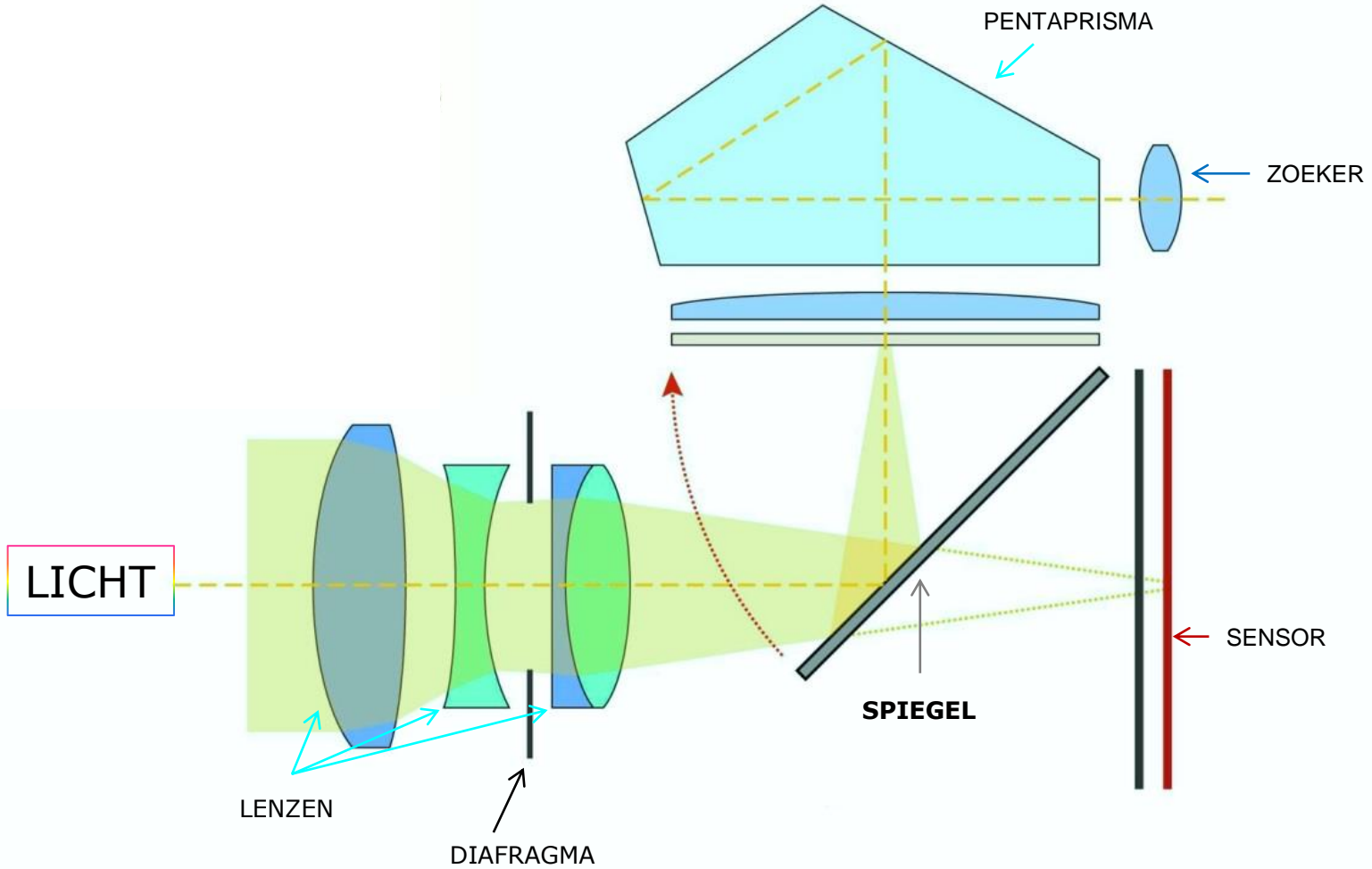






A close-up photograph of a camera's diaphragm unit. The central feature is a small, dark, circular pupil. Surrounding it are several overlapping, curved metal blades that form the iris. The blades are made of a dark, textured metal. The entire unit is housed within a black plastic or metal frame. There are some colorful reflections (blue, green, purple) on the metal surfaces, likely from the camera's lens or the lighting used to take the photo. A white arrow points from the text box to the central pupil.

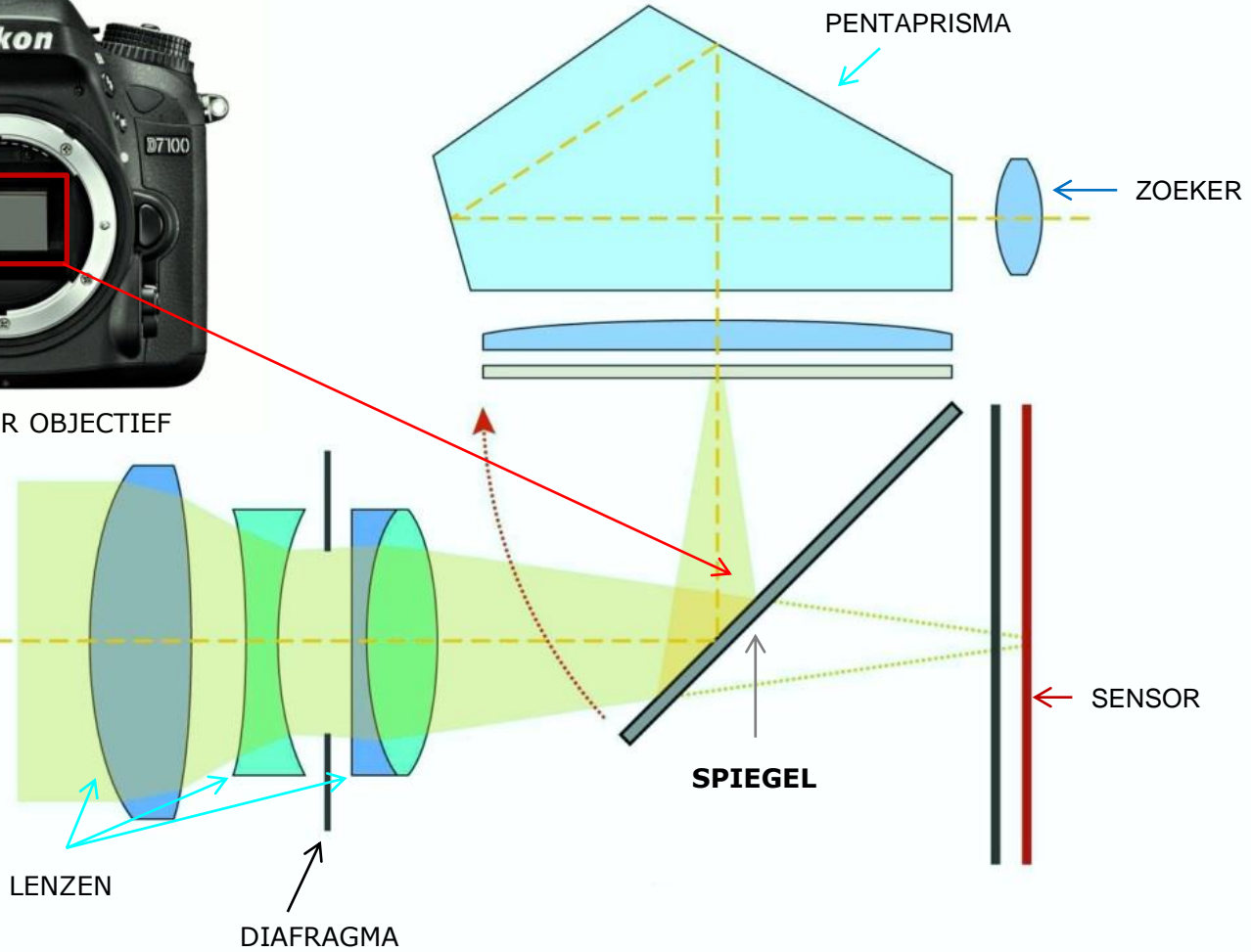
Diafragma unit met de
zichtbare metalen plaatjes
die een 'pupil' vormen





DSLR BODY ZONDER OBJECTIEF

LICHT



LENZEN

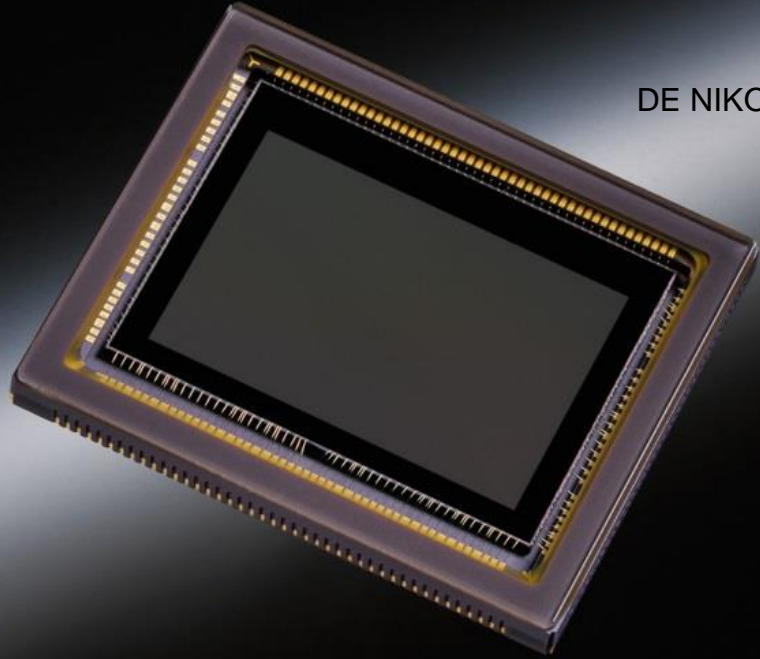
DIAFRAGMA

SPIEGEL

PENTAPRISMA

ZOEKER

SENSOR



DE NIKON CMOS SENSOR



1.3

Camera types







Samsung Galaxy S Plus

f/2.6 3.79mm ISO 50



Canon EOS 550D

f/3.2 50mm ISO 100



2

BELICHTING





AUTO

2.1

De camera

SLOW
REAR

S

RAW+
BASIC

RAW+
FINE

WB *

+1.3

+
MUSIC NOTE

BKT OFF N H

BATTERY LEVEL

AA

1.0

SLOW REAR
 TTL FP
 CLOCK
 6 fps
 AUTO
 3D
 AF-A
 RAW+ BASIC
 RAW+ FINE
 WB*
 AUTO2



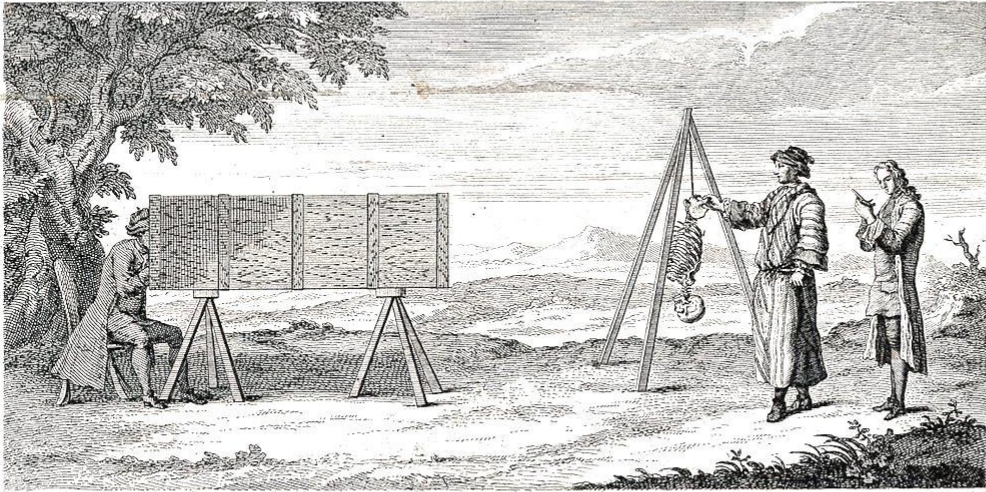
DX

ISO NR OFF

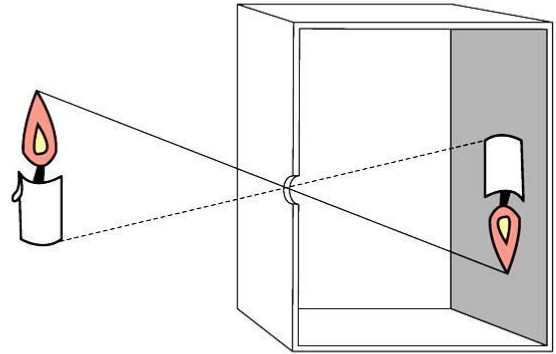
OFF

HDR H+ ↺

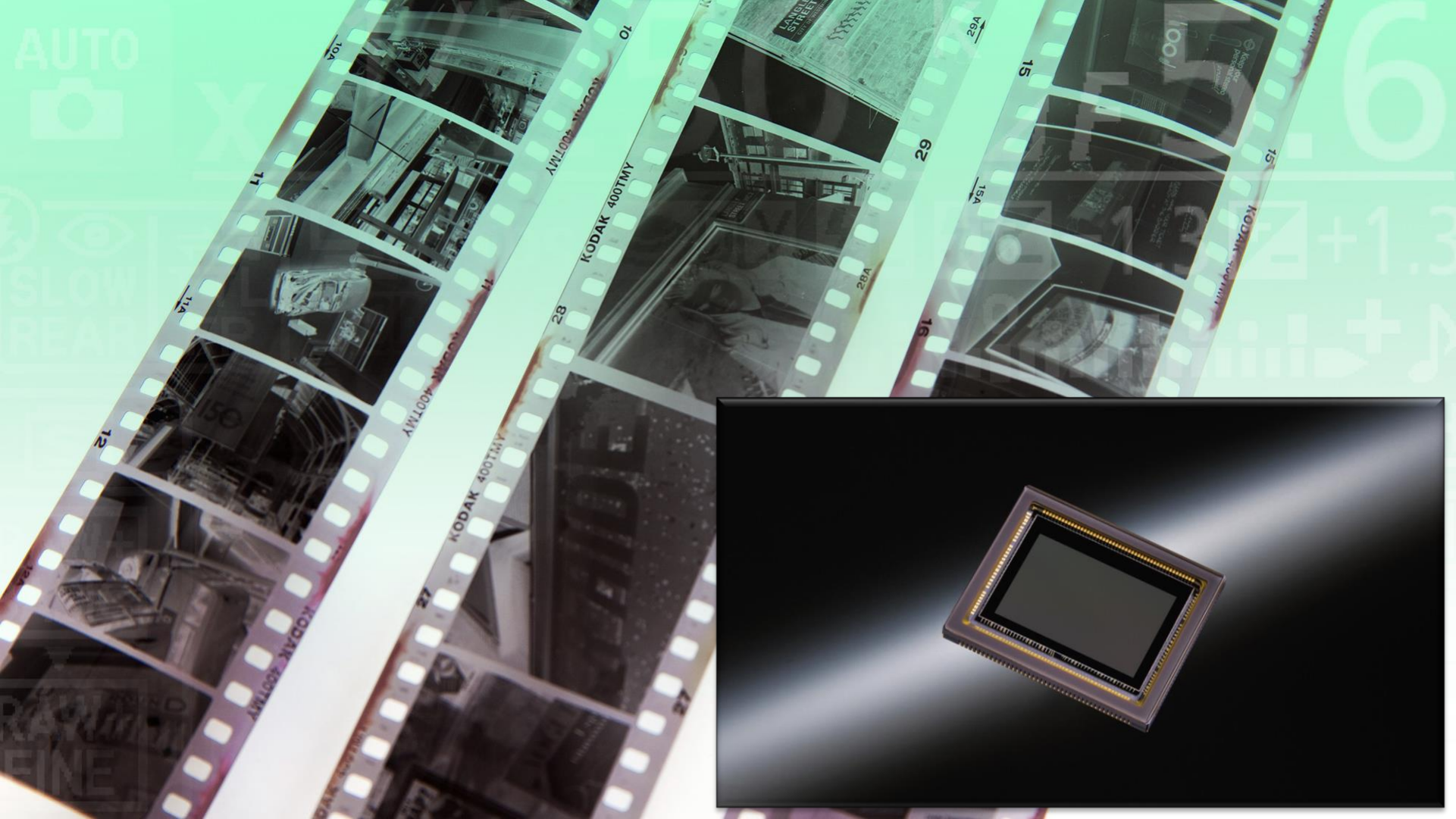
Pv BKT



medical



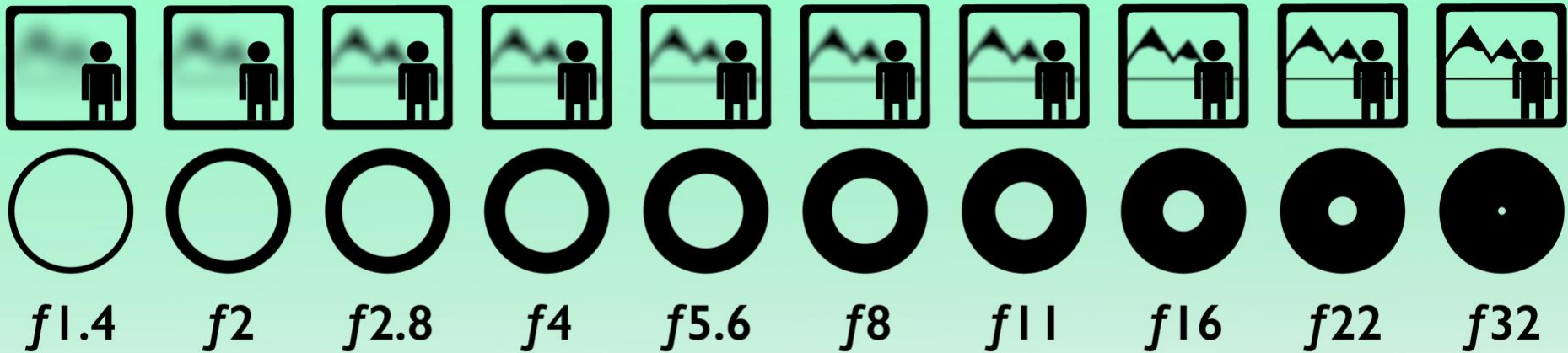




2.2

De sluitert



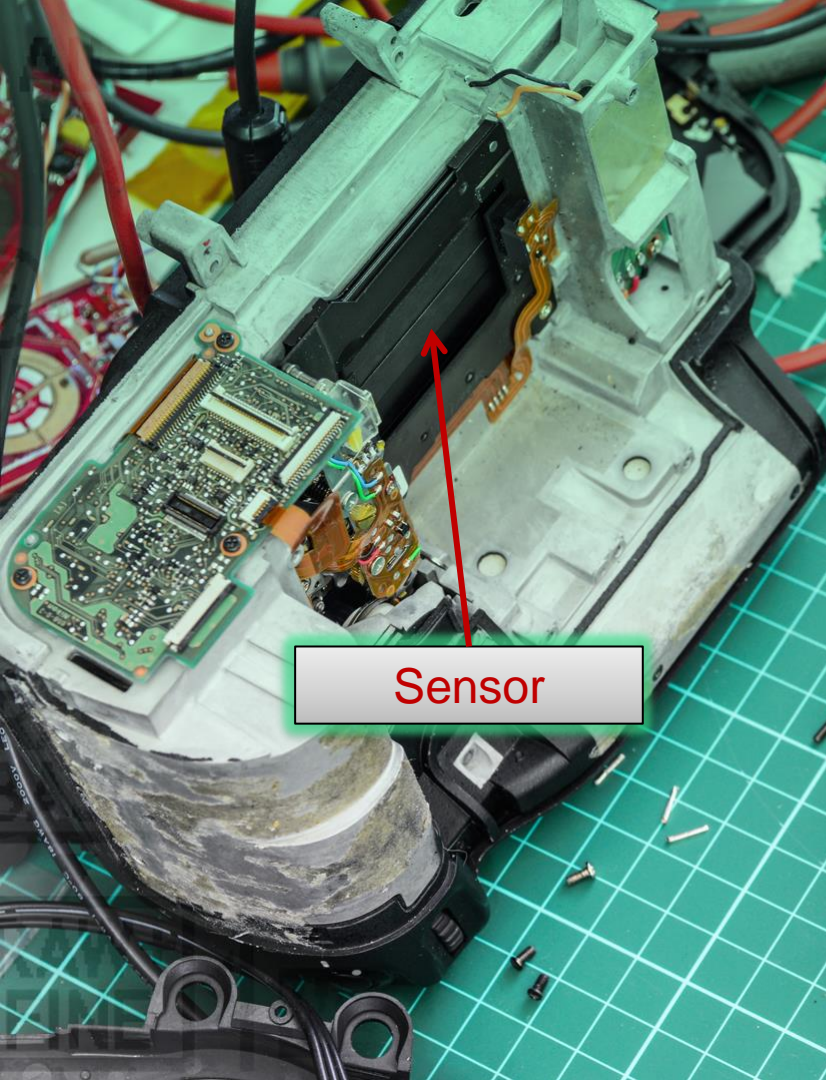




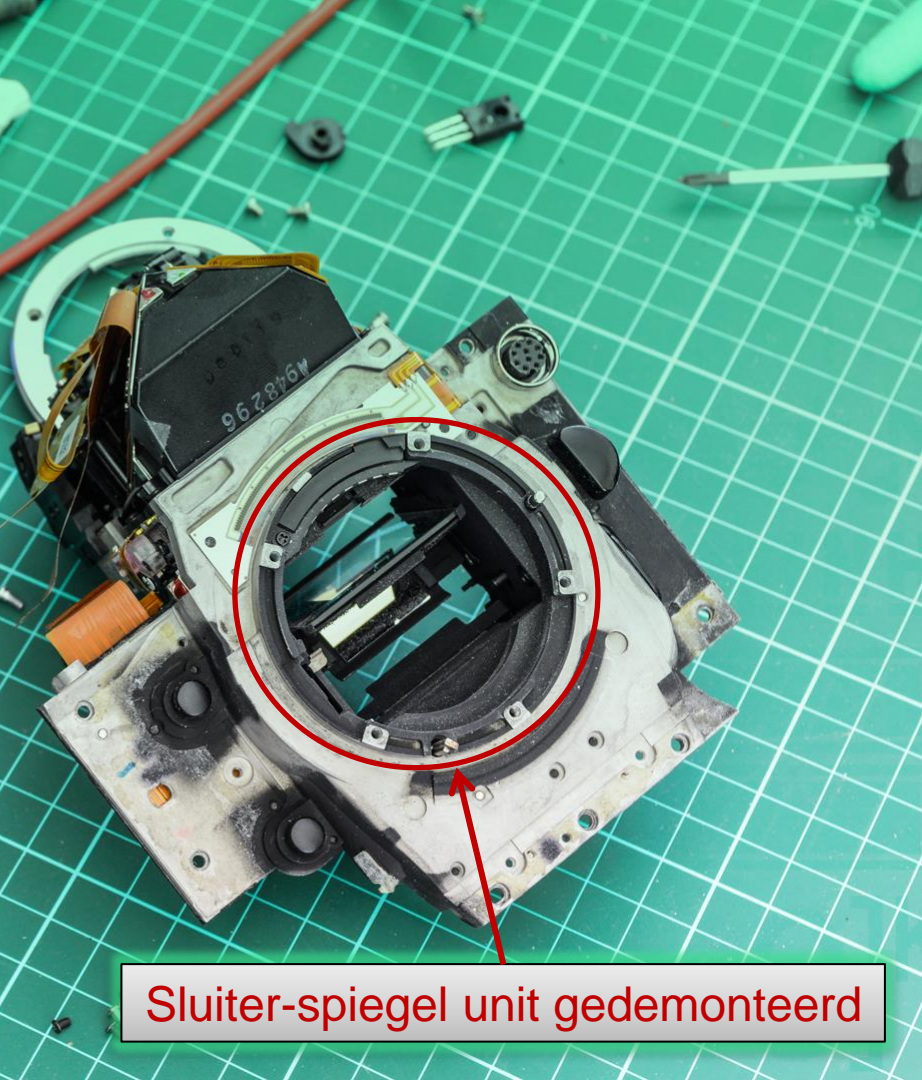
LCD scherm met de instellingen voor de **sluiter**, diafragma en lichtgevoeligheid

160

Nikon D4



Sensor



Sluiter-spiegel unit gedemonteerd







*f*1.4 *f*2 *f*2.8 *f*4 *f*5.6 *f*8 *f*11 *f*16 *f*22 *f*32



1/1000 **1/500** **1/250** **1/125** **1/60** **1/30** **1/15** **1/8** **1/4** **1/2**



ISO 50 ISO 100 ISO 200 ISO 400 ISO 800 ISO 1600 ISO 3200 ISO 6400 ISO 12800 ISO 25600

2.3

Het diafragma





Achterkant van het objectief gedemonteerd
met de zichtbare diafragma plaatjes

AUTO
X 1/250 K ΔF 5.6



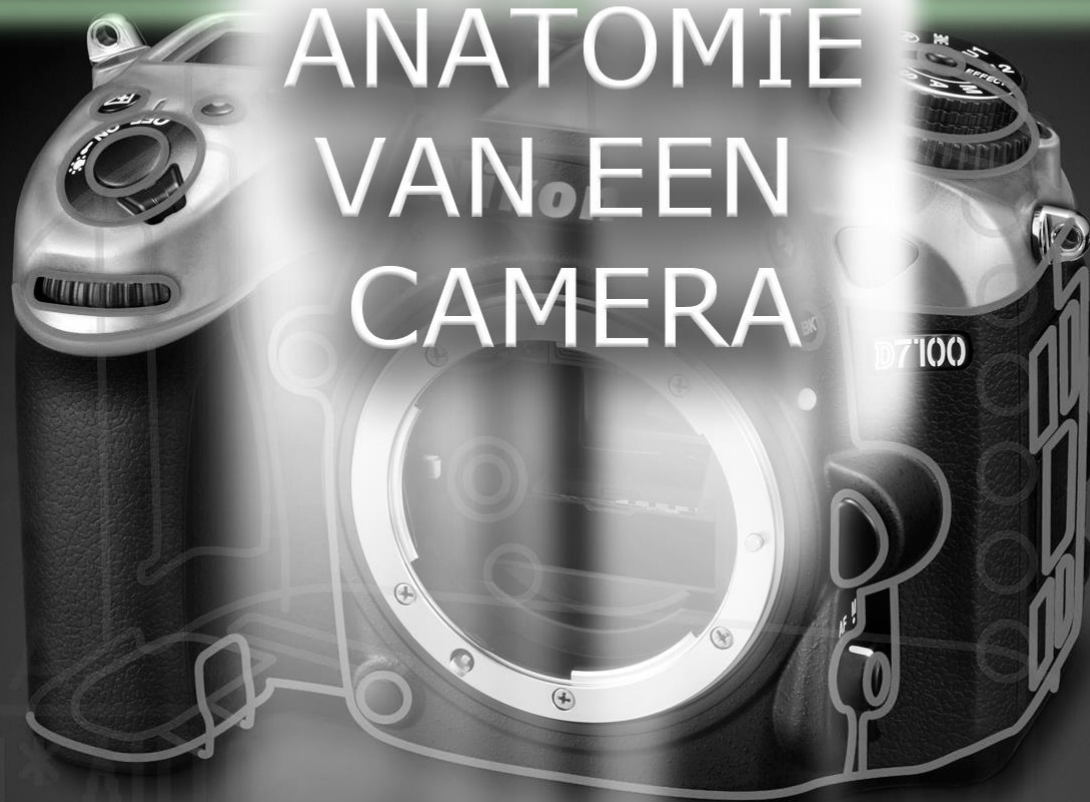
*f*1.4 *f*2 *f*2.8 *f*4 *f*5.6 *f*8 *f*11 *f*16 *f*22 *f*32



1/1000 1/500 1/250 1/125 1/60 1/30 1/15 1/8 1/4 1/2

3

ANATOMIE VAN EEN CAMERA



D7100

3.1

Belichtungs- standen











Kodak

AUTO

SLOW
REAR

RAW+
BASIC

RAW+
FINE

WB

6

13



AUTO



SLOW REAR



RAW+ BASIC

STEREO

FORMAT

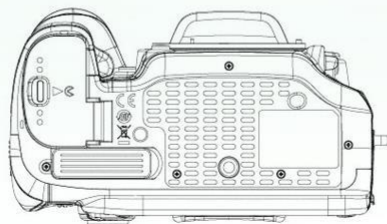
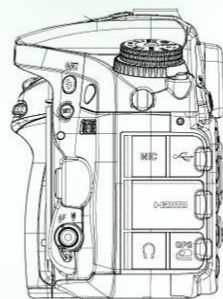
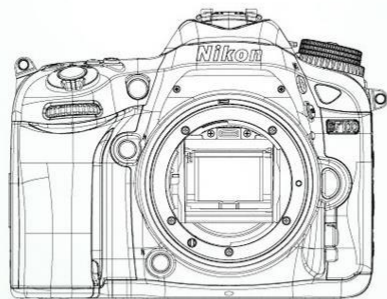
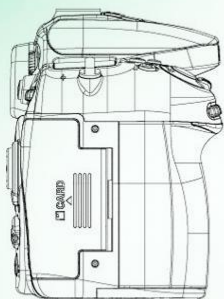
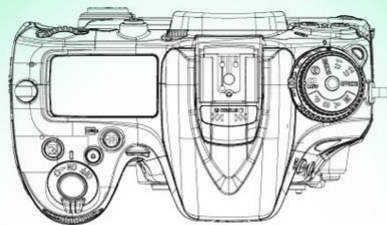
AUTO

X

SLOW REAR

S

BASIC

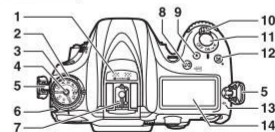


Inleiding

Kennismaking met de camera

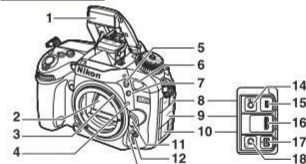
Neem even de tijd om vertrouwd te raken met de camerabedieningen en schermen van de camera. Leg eventueel een bladwijzer in dit hoofdstuk zodat u het gemakkelijk kunt terugvinden terwijl u de rest van de handleiding leest.

De camerabody



1 Stereomicrofoon	163, 192, 273	7 Accessoireschoen (voor optionele flitser)	311, 319
2 Keuzeknop ontspanstand	8, 66	8 $\frac{1}{2}$ knop	106, 289
3 Standknop	6	9 Filmpopnameknop	163
4 Ontgrendelingsknop van standknop	6	10 Hoofdschakelaar	5, 24
5 Oogje voor camerariem	20	11 Ontspanknop	34, 35
6 Ontgrendelingsknop keuzeknop ontspanstand	8, 66	12 $\frac{1}{2}$ knop	109, 194
		13 Film-afmarkering (+)	98
		14 Bedieningspaneel	9

De camerabody (vervolg)



3.2

De sluiterknop indrukken





AUTO
[Camera icon]

X

5.6

[Eye icon]
SLOW REAR

[TTL icon]
TTL FP

[+1.3 icon]

[+ icon]

S

RAW+
BASIC

OFF NH

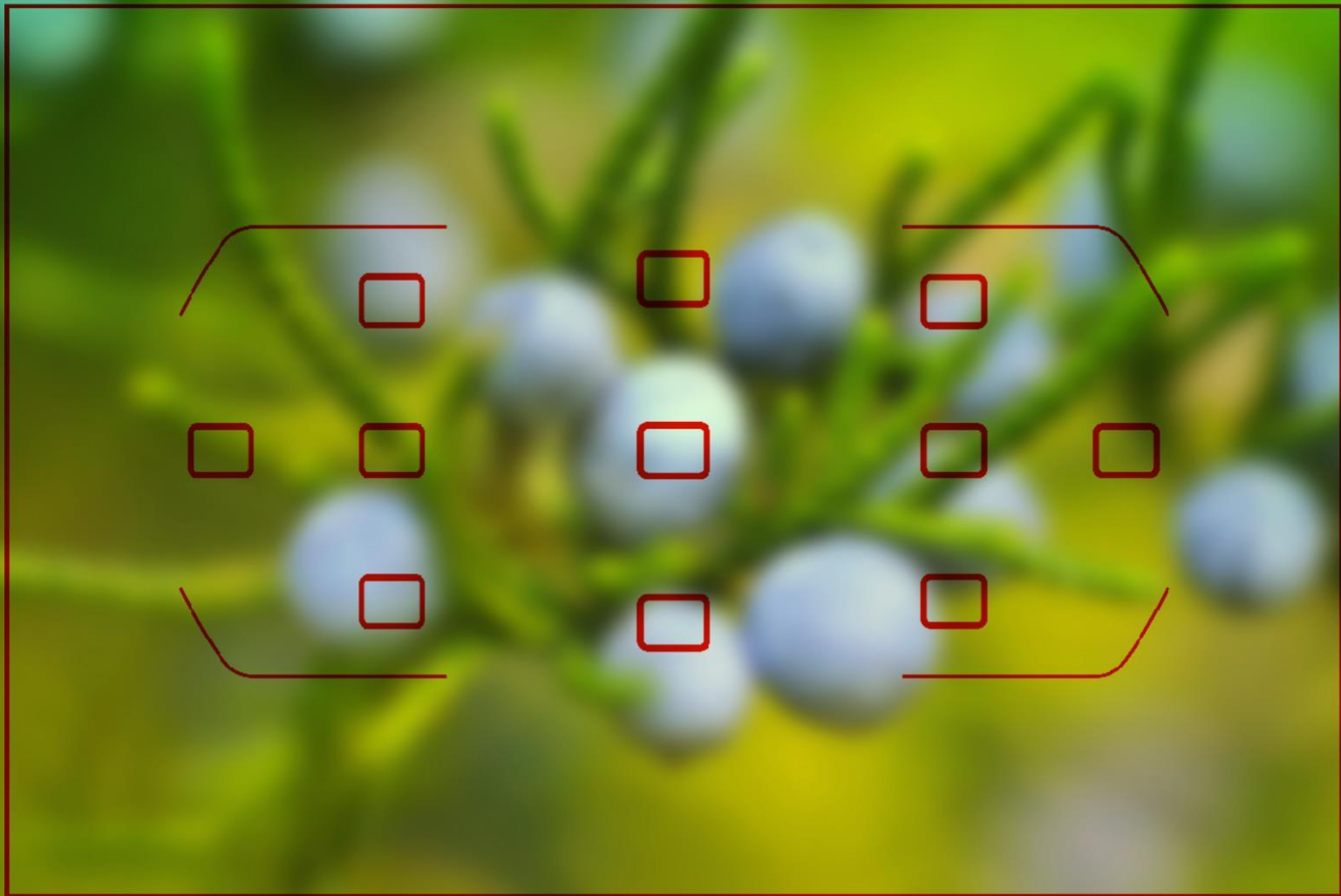


RAW+
FINE

STEREO

FORMAT

1.0

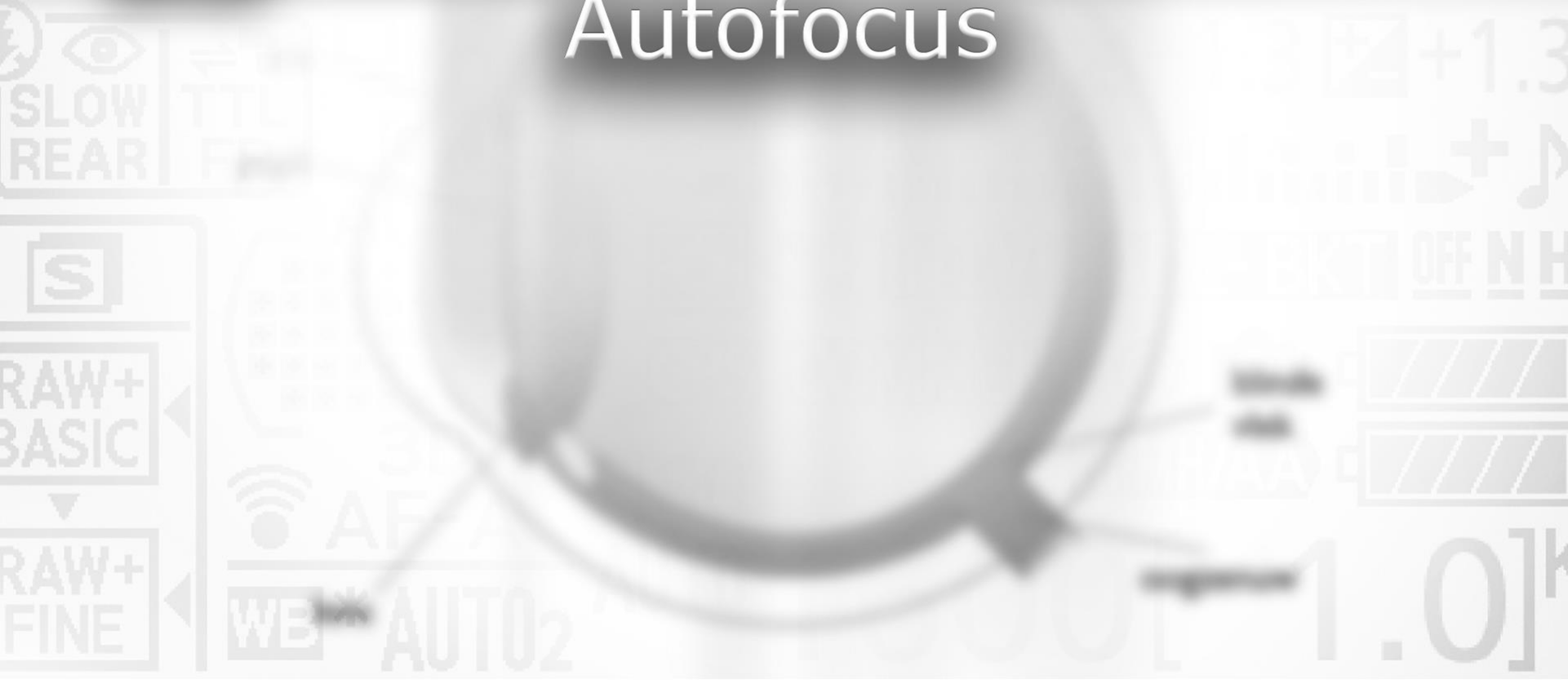


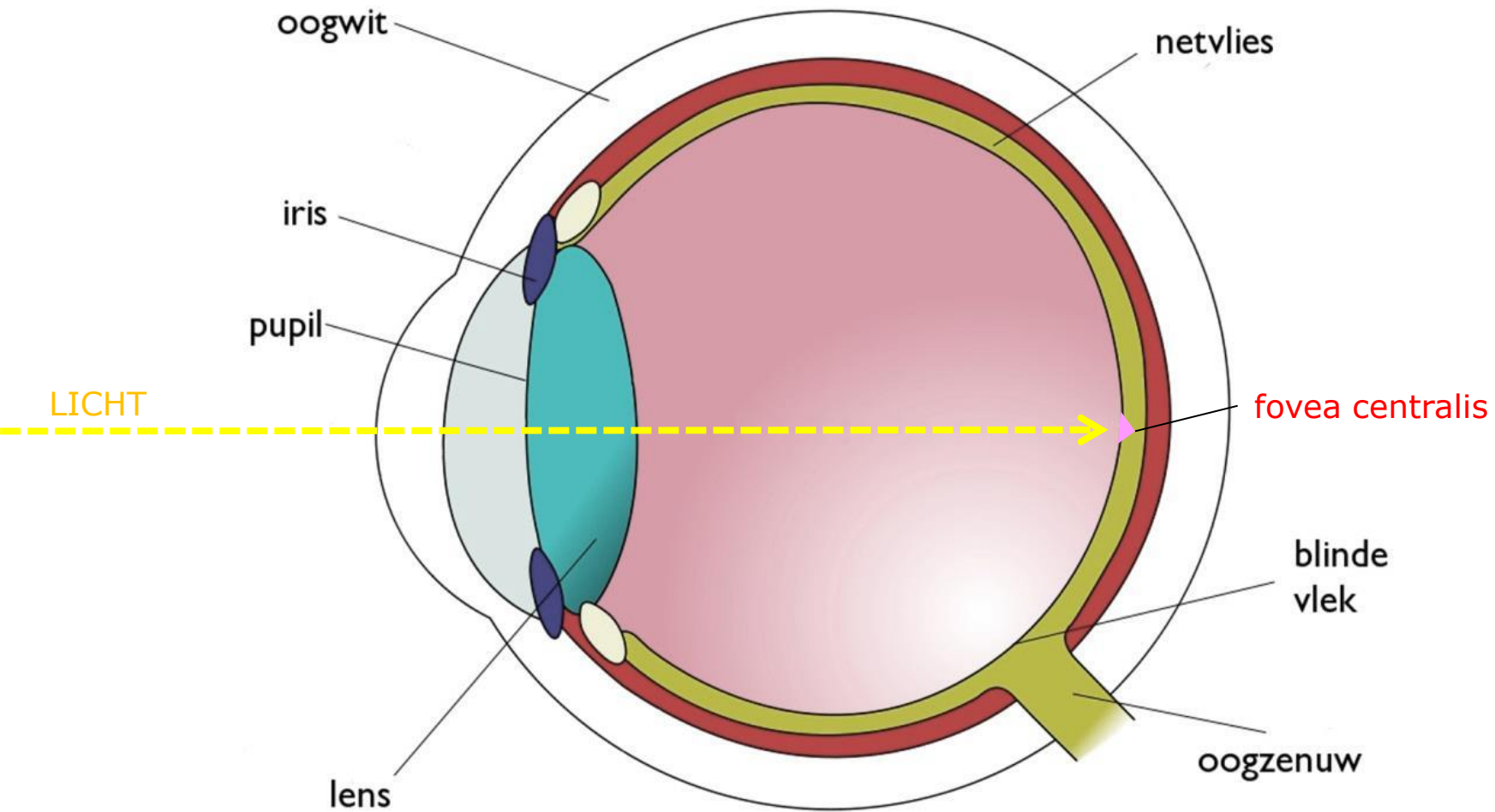




AUTO
3.3

Autofocus







AUTO



X

5.6

SLOW REAR

TTL
FF

3 +1.3

S

RAW+
BASIC

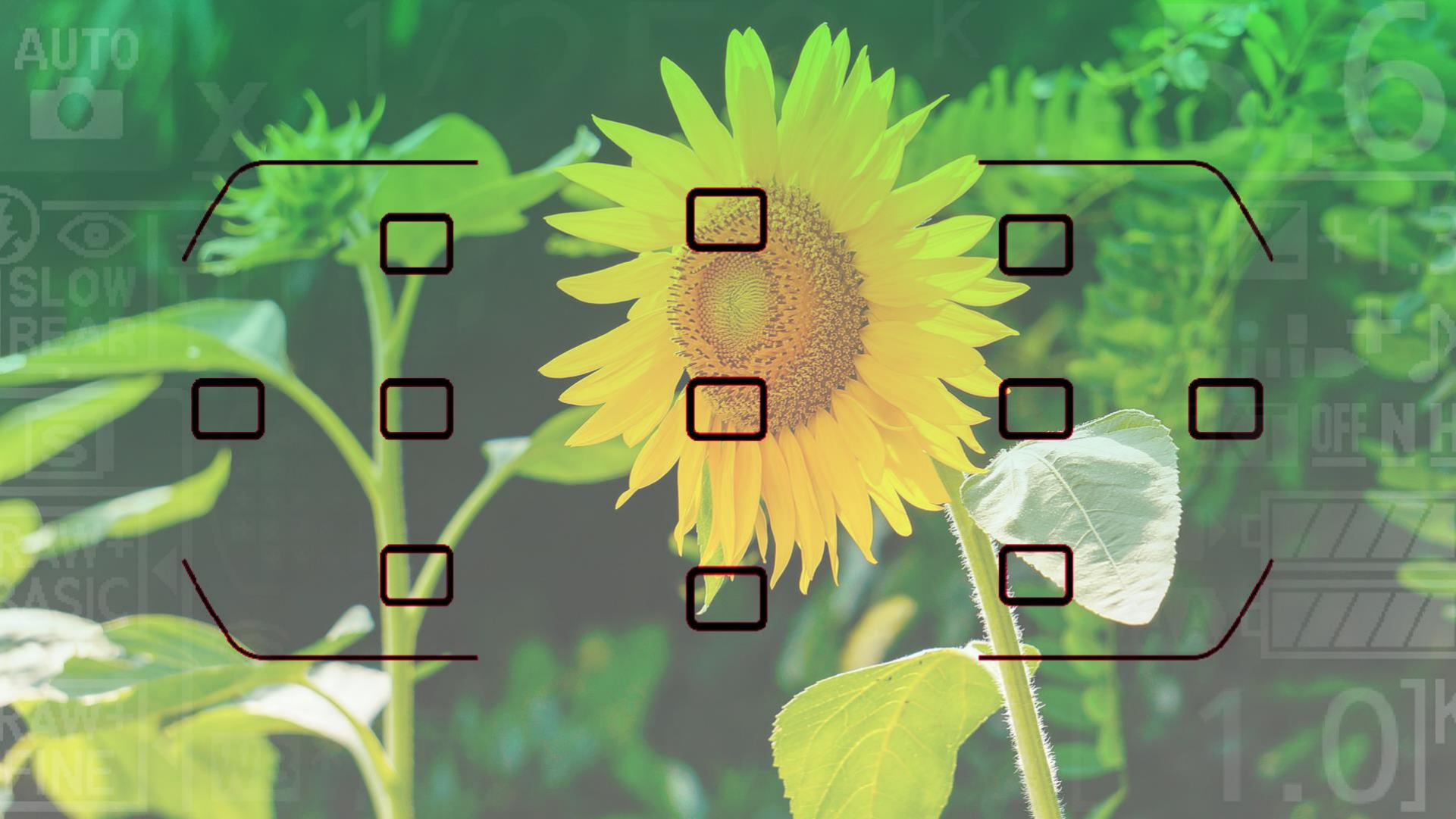
OFF N H

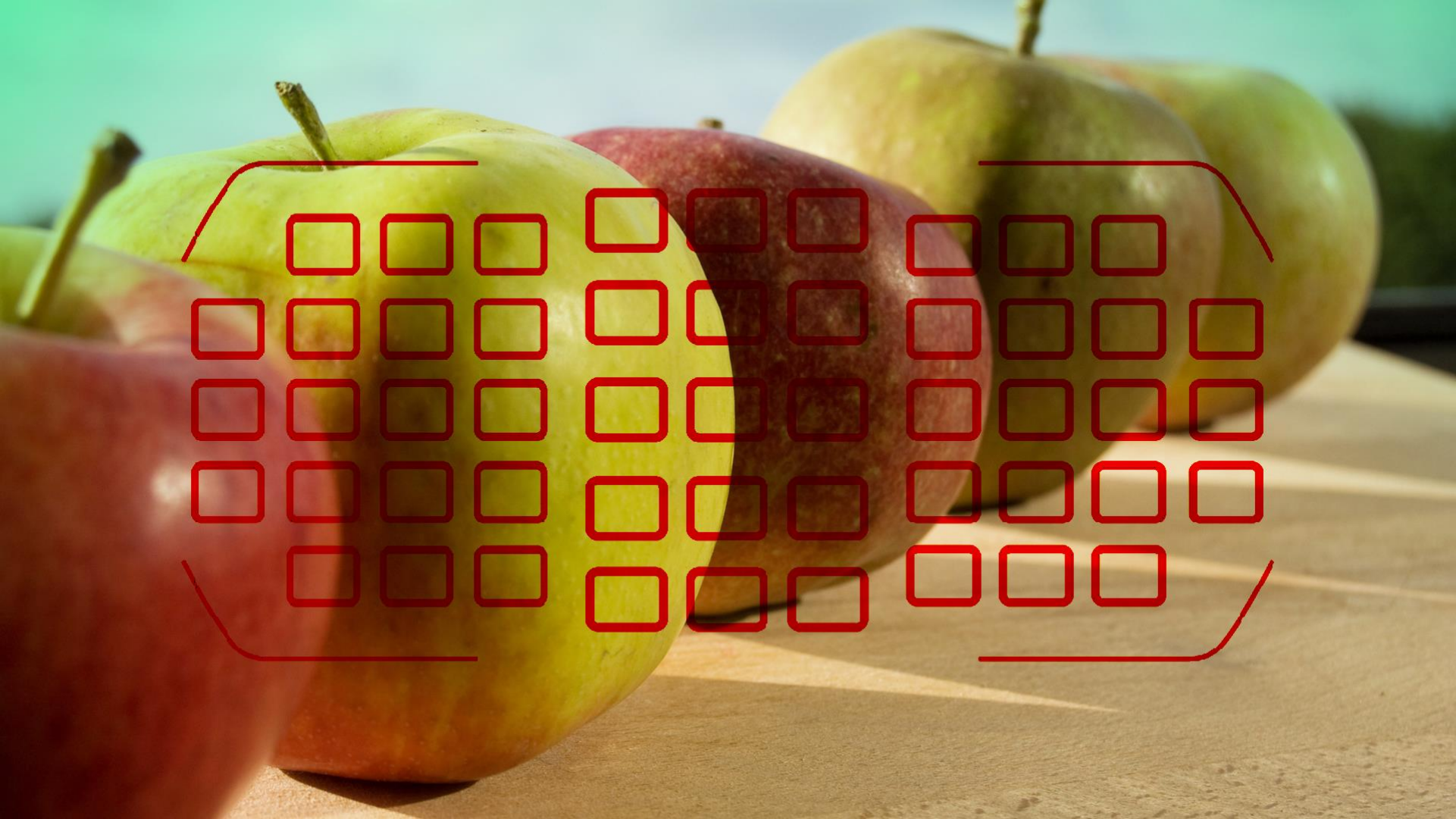
RAW+
FINE

WB



1.0]k





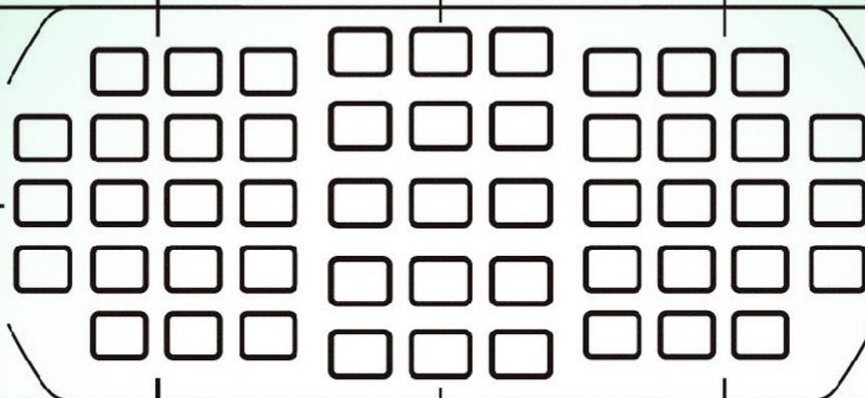


De lichtmeter in de camera

EFFECTS
B/W



1.3x



De lichtmeting die U gebruikt in de zoeker

AE-L 88.86/F8.0 0 BKT ISO(AUTO) 88.816



FOUT



GOED

4

DE SLUITER



4.1

Scherpte



FRISIERSALON
& FRÜLL







4.2

Sluitersnelheid









4.3

Sluitercontrole







M6
A
76.0

A 54 Northwich, Chester
Middlewich, Holmes Chapel
NORTH WALES, Preston,
Manchester, Leeds M6 ↑





M

A

S

P

MUP

G

B

CLCH

SCENE

U1

U2

EFFECTS



AUTO

STEREO

FORMAT

AUTO



X



SLOW REAR

S

RAW+BASIC

4.4

Stop

*f*1.4

*f*2

*f*2.8

*f*4

*f*11

*f*16

*f*22

*f*32



1/1000



1/500



1/250



1/125



1/60



1/30



1/15



1/8



1/4



1/2



ISO 50



ISO 100



ISO 200



ISO 400



ISO 800



ISO 1600



ISO 3200



ISO 6400



ISO 12800



ISO 25600



*f*1.4 *f*2 *f*2.8 *f*4 *f*5.6 *f*8 *f*11 *f*16 *f*22 *f*32



1/1000 **1/500** **1/250** **1/125** **1/60** **1/30** **1/15** **1/8** **1/4** **1/2**



ISO 50 ISO 100 ISO 200 ISO 400 ISO 800 ISO 1600 ISO 3200 ISO 6400 ISO 12800 ISO 25600





*f*1.4

*f*2

*f*2.8

*f*4

*f*5.6

*f*8

*f*11

*f*16

*f*22

*f*32



1/1000



1/500



1/250



1/125



1/60



1/30



1/15



1/8



1/4



1/2

AUTO

4.5

Sluitersnelheid prioriteitstand





STEREO

FORMAT

M

A

S

P

MUP

G

CLCH

SCENE

U1

U2

EFFECTS

AUTO

AUTO



X



SLOW REAR

S

RAW+BASIC



AUTO



X



SLOW REAR



RAW+BASIC

STEREO

FORMAT



s = 1/40



s = 1/80



s = 1/160

4.6

Oefening sluitersnelheid





4.7

Wisselwerking





4.8

Controle op beweging









MENU

WB



QUAL



ISO



Nikon

D7200



4.9

Sluitersnelheid stappen

$f1.4$

$f2$

$f2.8$

$f4$

$f11$

$f16$

$f22$

$f32$



1/1000



1/500



1/250



1/125



1/60



1/30



1/15



1/8



1/4



1/2



ISO 50



ISO 100



ISO 200



ISO 400



ISO 800



ISO 1600



ISO 3200



ISO 6400



ISO 12800



ISO 25600



f1.4

f2

f2.8

f4

f5.6

f8

f11

f16

f22

f32



1/1000

1/500

1/250

1/125

1/60

1/30

1/15

1/8

1/4

1/2



ISO 50

ISO 100

ISO 200

ISO 400

ISO 800

ISO 1600

ISO 3200

ISO 6400

ISO 12800

ISO 25600

sluiter stappen

1/8000	1/500	1/30	1/2	8 s.
1/6400	1/400	1/25	1/.6	10 s.
1/5000	1/320	1/20	1/.3	13 s.
1/4000	1/250	1/15	1 s.	16 s.
1/3200	1/200	1/13	1.3 s.	
1/2500	1/160	1/10	1.6 s.	
1/2000	1/125	1/8	2 s.	
1/1600	1/100	1/6	2.5 s.	
1/1250	1/80	1/5	3 s.	
1/1000	1/60	1/4	4 s.	
1/800	1/50	1/3	5 s.	
1/640	1/40	1/2.5	6 s.	

4.10

Oefening sluitersnelheid





5

HET DIAFRAGMA

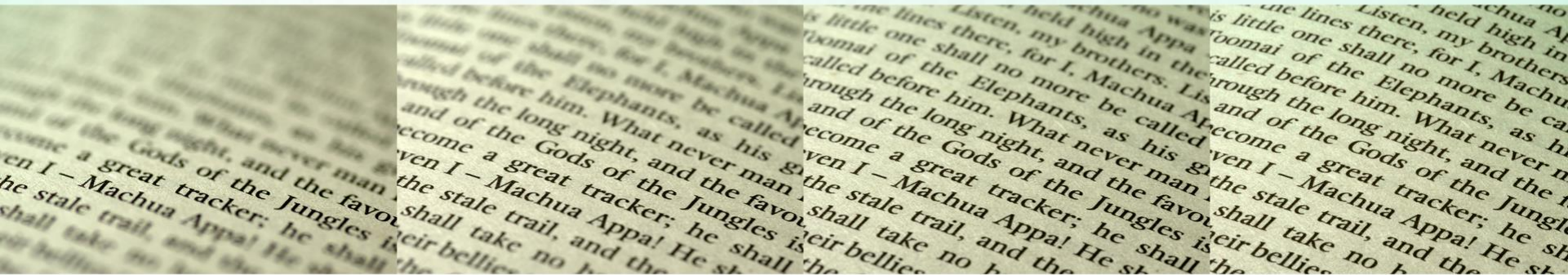


5.1

Scherptediepte







f/2.8

f/8

f/16

f/32





5.2

Diafragma stappen

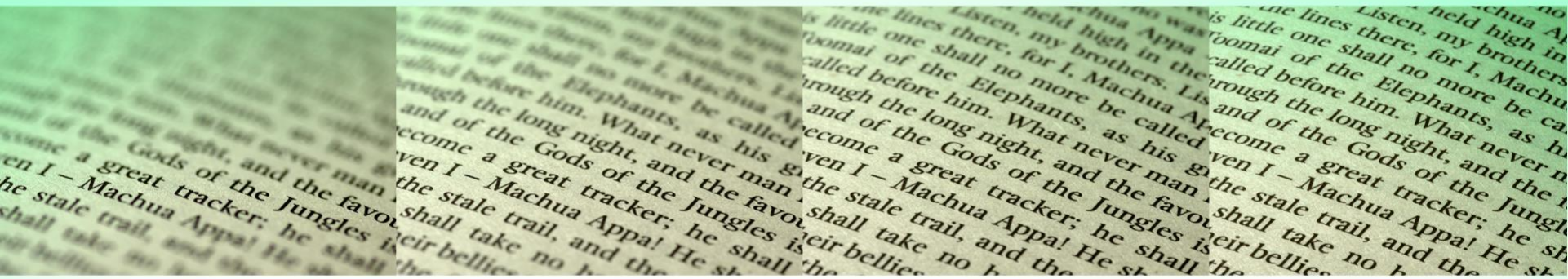


f/2.8

f/8

f/16

f/32

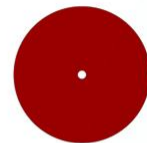


$f/2.8$

$f/8$

$f/16$

$f/32$



$f1.4$

$f2$

$f2.8$

$f4$

$f5.6$

$f8$

$f11$

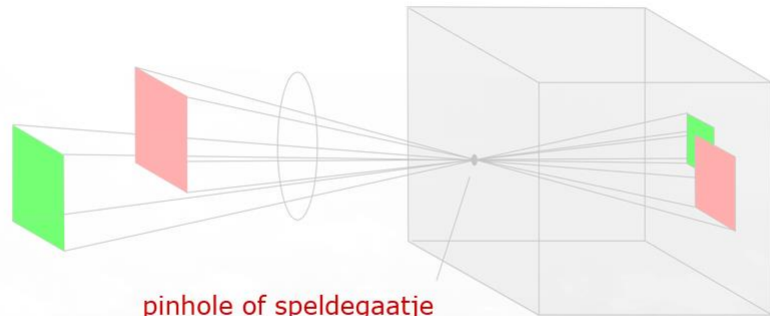
$f16$

$f22$

$f32$

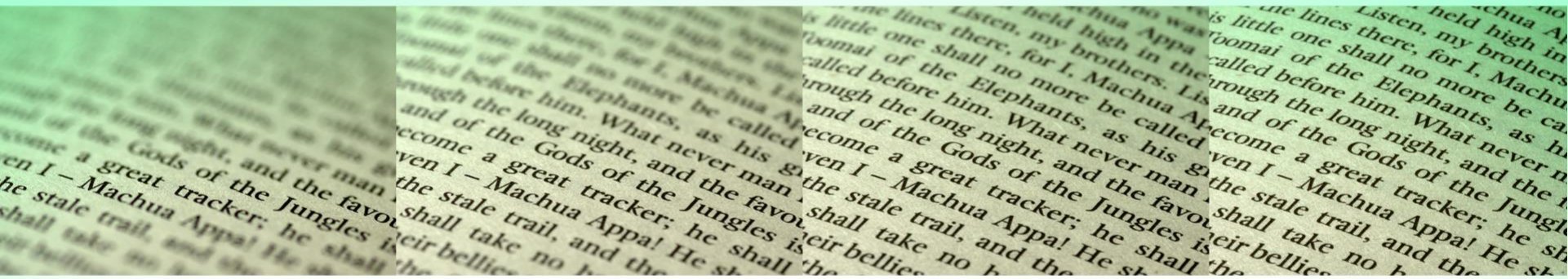






pinhole of speldegaatje



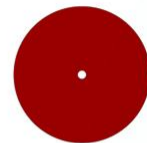


$f/2.8$

$f/8$

$f/16$

$f/32$



$f1.4$

$f2$

$f2.8$

$f4$

$f5.6$

$f8$

$f11$

$f16$

$f22$

$f32$

AUTO

5.3

Diafragma prioriteitstand





AUTO



SLOW REAR



RAW+BASIC

STEREO

M
A
S
P
MUP
G
D
CLCH
SCENE
U1
U2
EFFECTS
AUTO

FORMAT



Nikon

f1 Custom control assignment

AF-area mode + AF-ON

[AF-ON] Single-point AF

[AF-ON] Dynamic-area AF (25 points)

[AF-ON] Dynamic-area AF (72 points)

[AF-ON] Dynamic-area AF (153 points)

[AF-ON] Group-area AF

[AF-ON] Auto-area AF

?



5.4



Lenzen





HOLLYWOOD
CAMERA STORE



Standaard lens



Prime en zoomlenzen



Groothoek en fish-eye lenzen



Macro lens



Telelens



Tilt-shift lens



5.5

Scherptediepte
diep
fotograferen





A landscape photograph showing a vast, green grassy field in the foreground. In the middle ground, a single, tall, thin tree with green foliage stands prominently. Behind the tree and across the field, a dense line of green trees forms a forest. The sky is bright blue with large, white, fluffy clouds. A thin, dark horizontal line is drawn across the image, passing through the base of the tree and the forest line, representing the horizon.

HORIZON

FOCUS GEBIED



FOUT : WEINIG FOCUS BIJ DE HORIZON

GOED : FOCUS OP DE PUNTEN VAN AANDACHT



5.5

Scherptediepte
ondiep
fotograferen









6

ISO

HET DERDE DEEL
VAN
BELICHTING

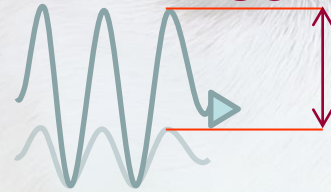
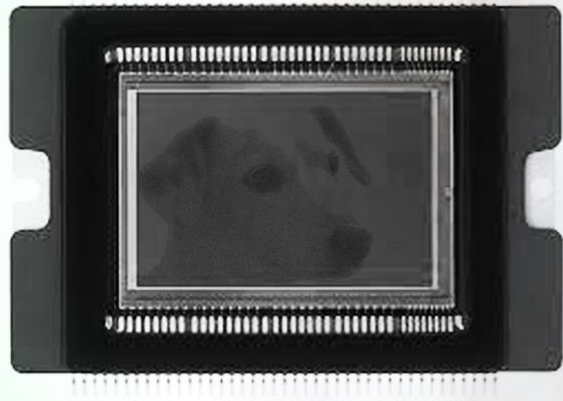
XRG 100

6.1

ISO









ISO 200

ISO 1200

f1.4

f2

f2.8

f4

f5.6

f8

f11

f16

f22

f32



1/1000



1/500



1/250



1/125



1/60



1/30



1/15



1/8



1/4



1/2



ISO 50



ISO 100



ISO 200



ISO 400



ISO 800



ISO 1600



ISO 3200



ISO 6400



ISO 12800



ISO 25600



CUSTOM SETTING MENU



07 Image review

ON



08 Flash compensation

0.0



09 AF-assist

OFF



10 ISO auto

OFF



11 /Fn button

WB



12 AE-L/AF-L



13 AE lock

OFF

6.2

Hoge ISO bepalen

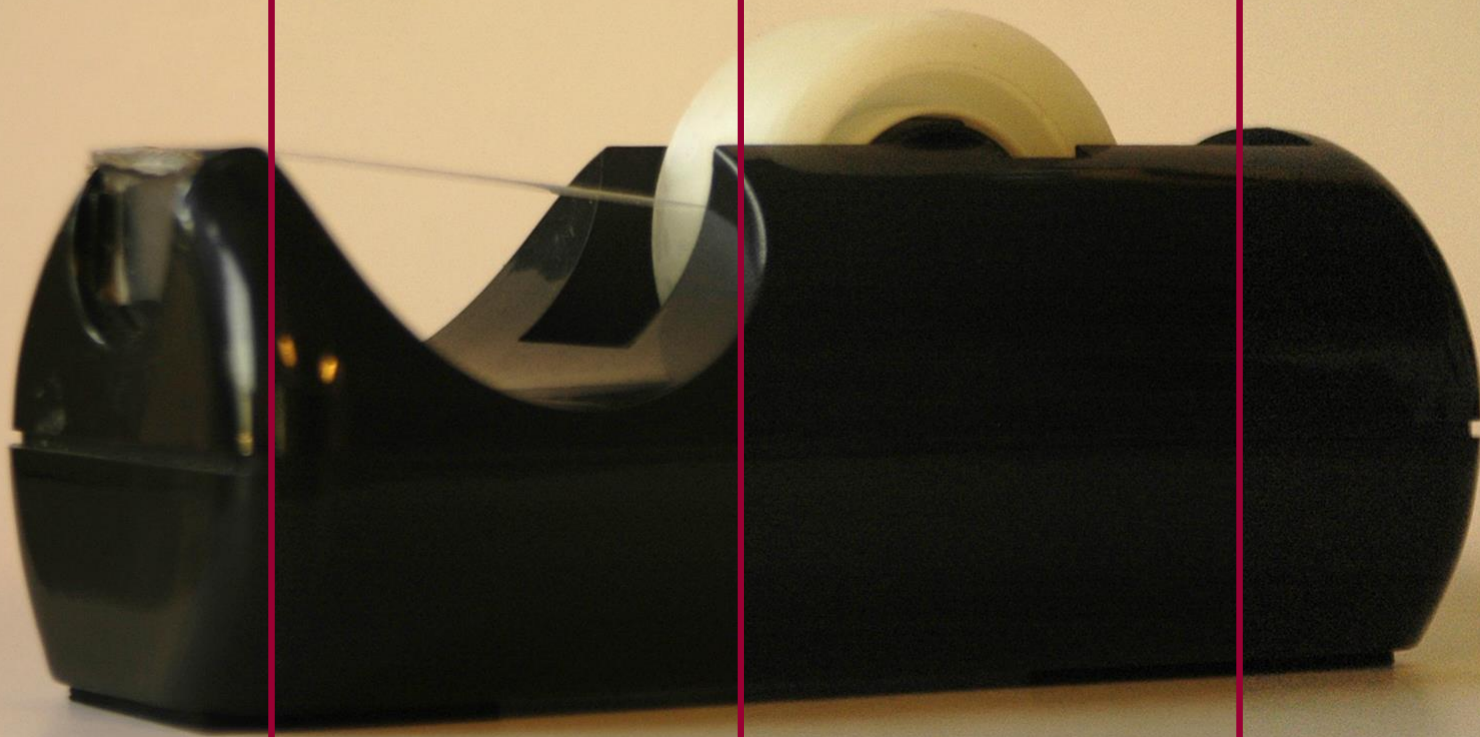


ISO 200

ISO 400

ISO 800

ISO 1600





6.3

Fotografie
met weinig licht











CUSTOM SETTING MENU

▶	Reset custom settings	--
📷	a Autofocus	
📺	b Metering/exposure	
🖋️	c Timers/AE lock	
🔧	d Shooting/display	
📄	e Bracketing/flash	
📄	f Controls	
📄	g Movie	

e Bracketing/flash

▶	e1 Flash sync speed	1/200
📷	e2 Flash shutter speed	1/60
📺	e3 Flash cntrl for built-in flash	M↔
🖋️	e4 Exposure comp. for flash	☒
🔧	e5 Modeling flash	ON
📄	e6 Auto bracketing set	AE
📄	e7 Bracketing order	→+
📄	f1 OK button	--

e6 Auto bracketing set

▶		
📷	AE↔	AE & flash
📺	AE	AE only
🖋️	↔	Flash only
🔧	WB	WB bracketing
📄	☒	ADL bracketing
📄		



D7200

M/A M

MIC

WiFi



6.4

Oefening
fotografie
met weinig licht



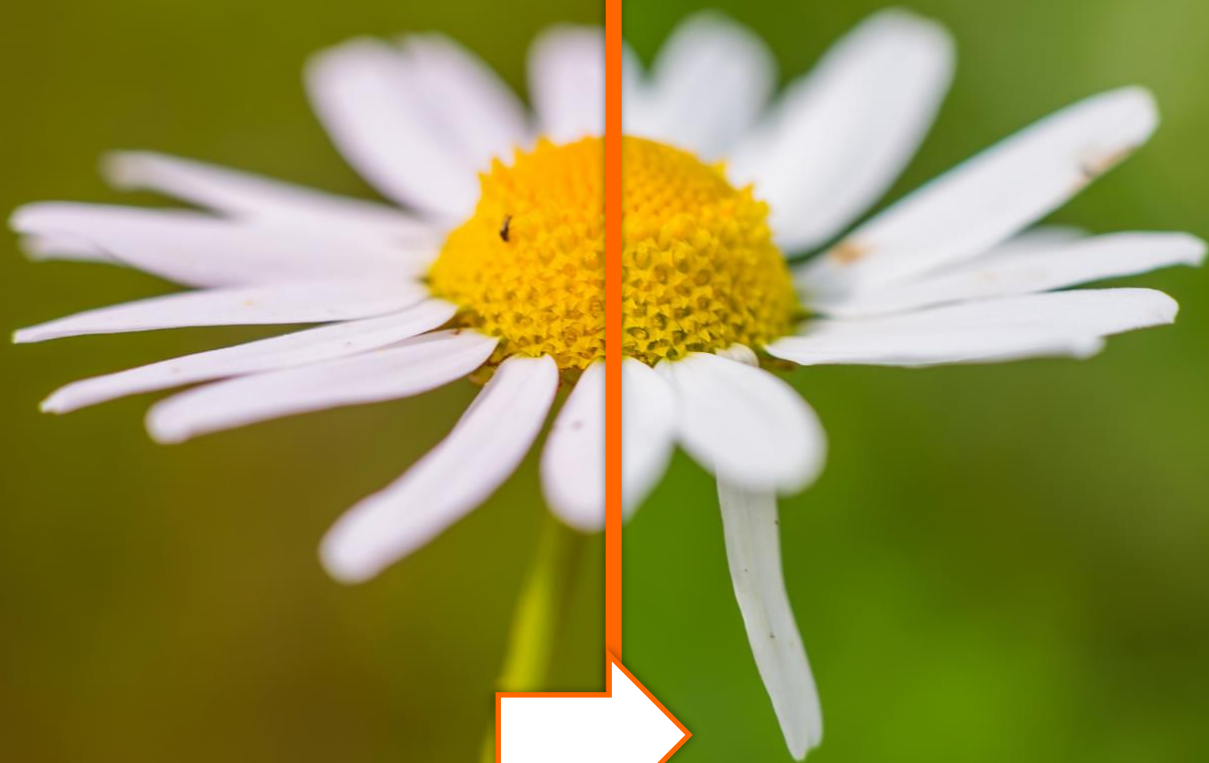
7

WITBALANS

7.1

Witbalans
afstellen





AWB

Auto



Tungsten



Fluorescent



Daylight



Cloudy



Flash



Shade



Width: 4424 Height: 4424
 Resolution: 72
 Color Profile: sRGB
 Metadata: XMP
 History

Step	Name	Last Saved
1	Import	0:00
2	Develop	0:00
3	Web	0:00
4	Web	0:00
5	Web	0:00
6	Web	0:00
7	Web	0:00
8	Web	0:00
9	Web	0:00
10	Web	0:00
11	Web	0:00
12	Web	0:00
13	Web	0:00
14	Web	0:00
15	Web	0:00
16	Web	0:00
17	Web	0:00
18	Web	0:00
19	Web	0:00
20	Web	0:00
21	Web	0:00
22	Web	0:00
23	Web	0:00
24	Web	0:00
25	Web	0:00
26	Web	0:00
27	Web	0:00
28	Web	0:00
29	Web	0:00
30	Web	0:00
31	Web	0:00
32	Web	0:00
33	Web	0:00
34	Web	0:00
35	Web	0:00
36	Web	0:00
37	Web	0:00
38	Web	0:00
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92	Web	0:00
93	Web	0:00
94	Web	0:00
95	Web	0:00
96	Web	0:00
97	Web	0:00
98	Web	0:00
99	Web	0:00
100	Web	0:00



Processing Profiles
 (Custom)

Exposure

Auto Levels Clip % 0.02 Neutral

Highlight reconstruction
 Method: Blend

Exposure compensation 5.25

Highlight compression 43

Highlight compression threshold 33

Black 63

Shadow compression 50

Lightness 2

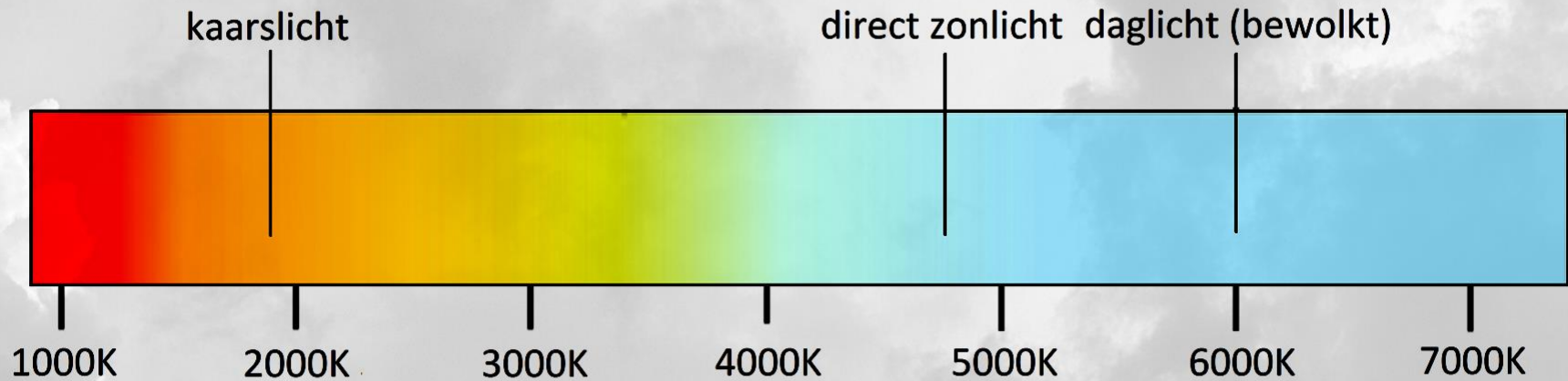
Contrast 28

Saturation 0

Tone curve 1: Standard

Tone curve 2: Standard

Shadows/Highlights
 Tone Mapping
 Vignette Filter
 Graduated Filter
 L*a*b* Adjustments
 CIE Color Appearance Model 2002





7.2

Witbalans manueel afstellen



at abne







1/160 29


100-5744 [CF]

 SET

Use WB data from this image
for Custom WB

Cancel

OK


151/151

MENU 

7.3

Het RAW formaat

History

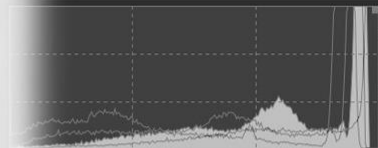
Photo Loaded	(Last Saved)
Sharpening	Disabled
Impulse noise reduction	Disabled
Wavelet equalizer	Disabled
HISTORY_MSG_94	Enabled
Color Boost	10
Avoid Color Clipping	Enabled
Saturation Limiter	Enabled
Crop Photo	S, y=240 3451, H=2301
Shadow Compression	-40
Black	13160
Highlight Compression	60
Exposure Compensation	0.85
Tone Curve	Custom Curve
Shadow Tonal Width	70
Local Contrast	10
Crop Photo	Disabled

Snapshots

+ Add - Del

Save Image Pkto queue Send to editor

Zoom: 33% +

Preferences <http://rawtherapee.com>

Postprocessing Profiles

Normal

Exposure Detail Color Transform Metadata

Exposure

Auto Levels Clip 0.0005

Exp. Comp. 0.85

Highlight rolloff 60

Black 13160

Shadow compression -40

Brightness 0

Contrast 0

Tone Curve
Type: Parametric

Highlights 15

Lights 0

Darks -25

Fullscreen



x = 3399, y = 1647

R = 254 H = 13 L = 95
G = 239 S = 233 A = 3
B = 232 V = 243 B = 5

Photo Loaded	(Last Saved)
Sharpening	Disabled
Impulse noise reduction	Disabled
Wavelet equalizer	Disabled
HISTORY_MSG_94	Enabled
Color Boost	10
Avoid Color Clipping	Enabled
Saturation Limiter	Enabled
Crop Photo	S, y=240 #451, H=2301
Shadow Compression	-40
Black	13160
Highlight Compression	60
Exposure Compensation	0.85
Tone Curve	Custom Curve
Shadow Tonal Width	70
Local Contrast	10
Crop Photo	Disabled

+ Add - Del

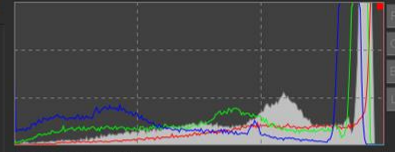
Thumbnail grid showing 8 images with metadata:

- 0002.PEF 2010-10-8 12:19:54 f/8.0 1/80s ISO200
- 0003.PEF 2010-10-8 12:20:20 f/8.0 1/80s ISO200
- 0004.PEF 2010-10-8 12:20:41 f/8.0 1/80s ISO200
- 0005.PEF 2010-10-8 12:20:50 f/8.0 1/80s ISO200
- 0006.PEF 2010-10-8 16:27:36 f/8.0 1/60s ISO200
- 0007.PEF 2010-10-8 16:29:37 f/8.0 1/60s ISO200
- 0008.PEF 2010-10-8 16:30:03 f/8.0 1/60s ISO200



Save Image Put to queue Send to editor

Zoom: 33%



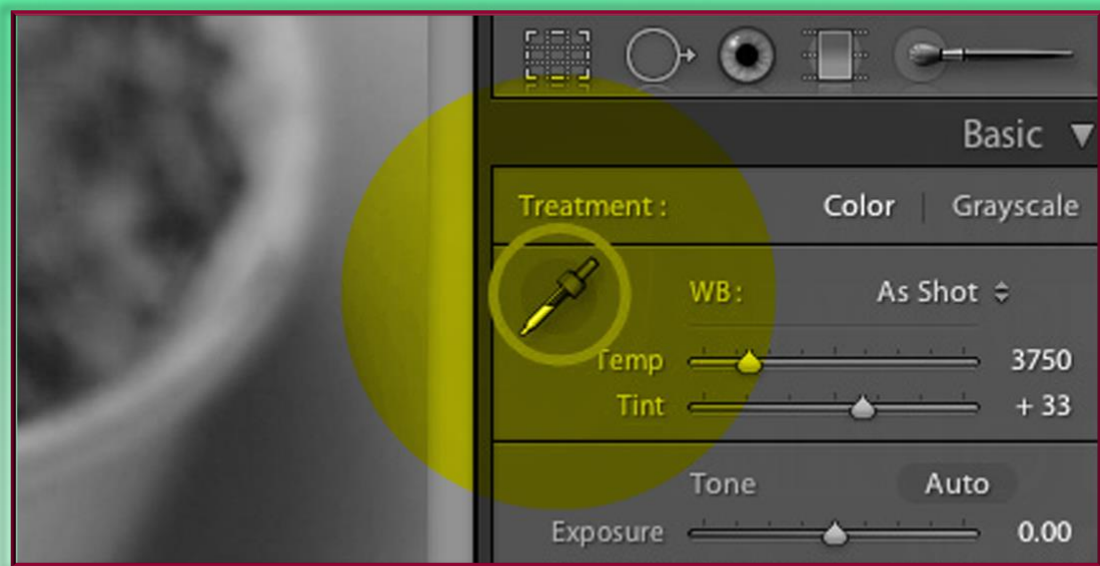
Postprocessing Profiles (Custom)

Exposure settings:

- Auto Levels: Clip 0.0005
- Exp. Comp.: 0.85
- Highlight rolloff: 60
- Black: 13160
- Shadow compression: -40
- Brightness: 0
- Contrast: 0

Tone Curve settings:

- Type: Parametric
- Highlights: 15
- Lights: 0
- Darks: -25



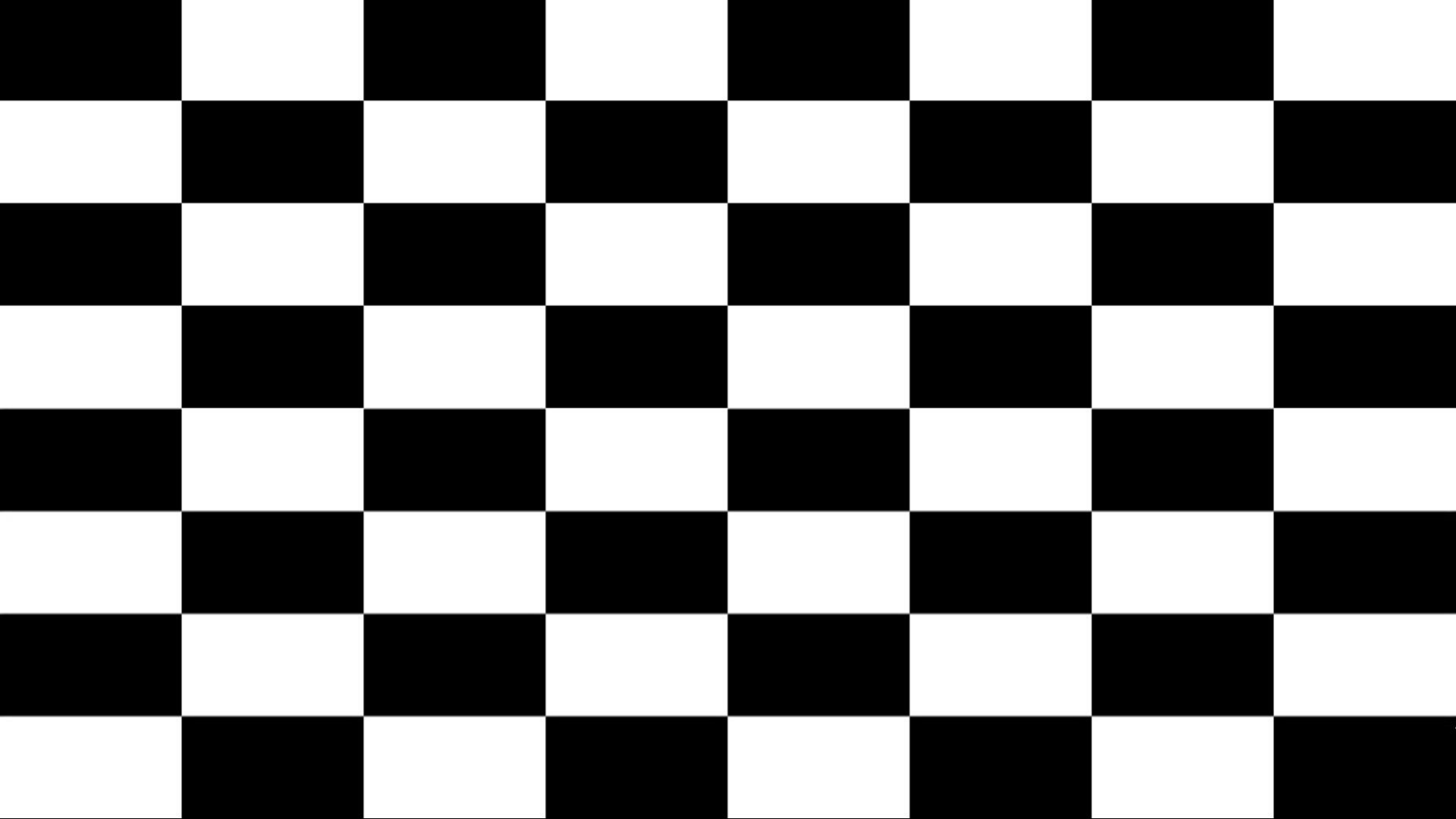
8

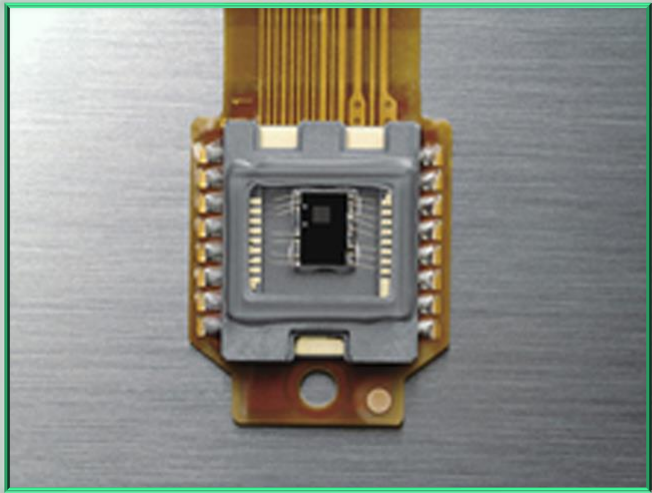
LICHTMETING



8.1

Hoe werkt
lichtmeting ?





Ingebouwde chip voor de
lichtmeter



lichtmeter

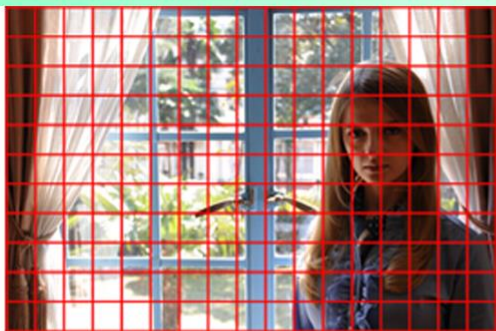
8.2

MATRIX Varierende lichtmeting

CENTRUM

SPOT

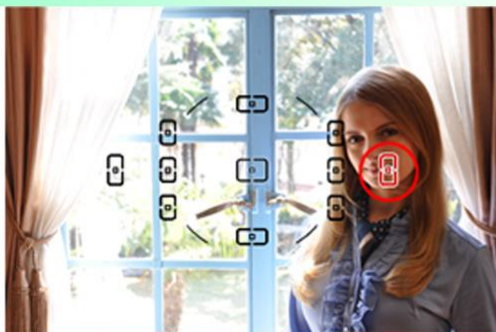




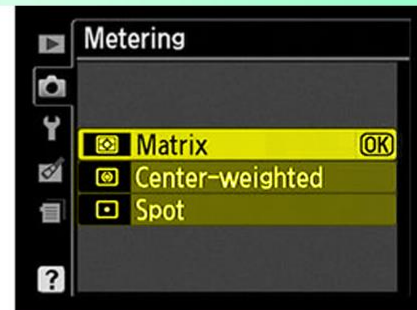
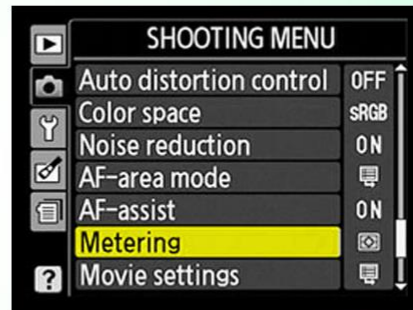
MATRIX

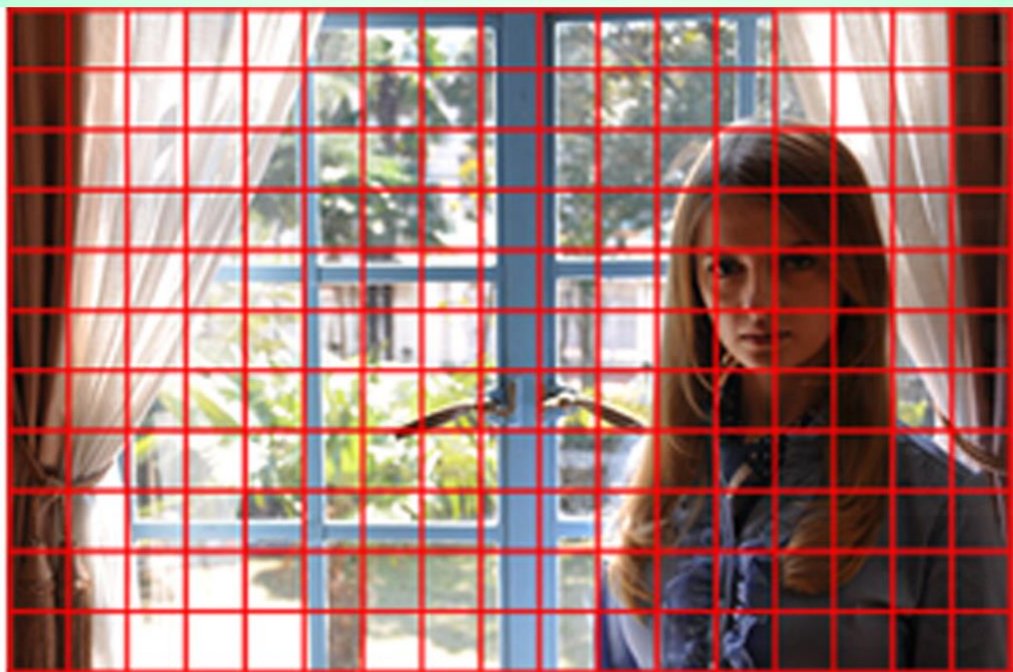
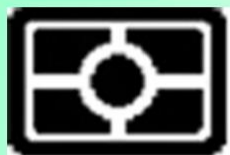


CENTRUM



SPOT





5.6

3 +1.3

+

BKT OFF N H

AA

1.0]



5.6

3 +1.3

iii +

BKT OFF N H

AA

1.0]



5.6

3 +1.3

+

BKT OFF N H

AA

1.0]

9

BELICHTING COMPENSEREN



9.1

Compensatie





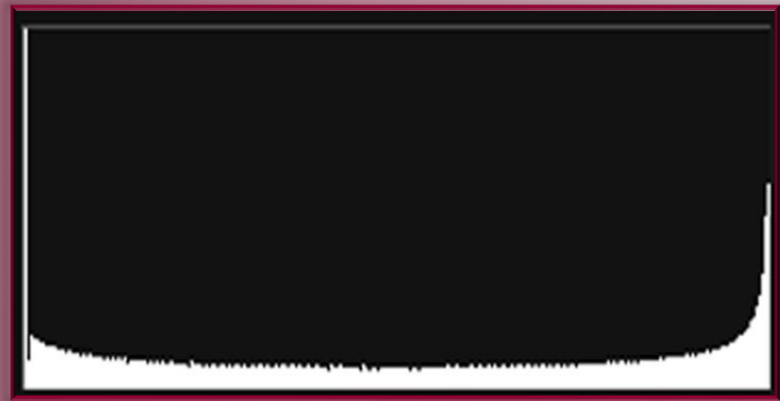




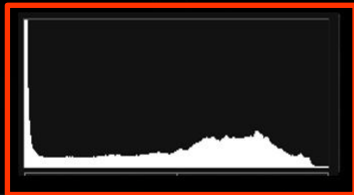
9.2

Het histogram

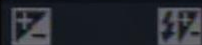




NIKON D5000



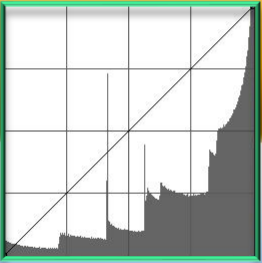
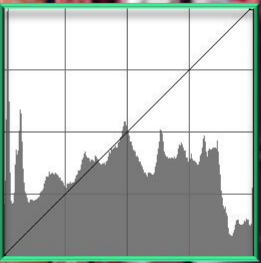
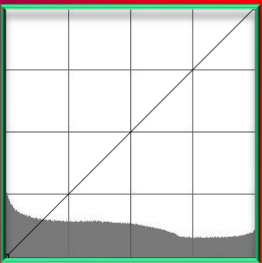
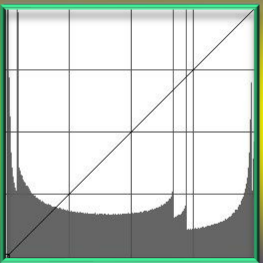
P 1/640 F6.3 ISO200 105mm



WB AUTO 0, 0 sRGB SD* AUTO

109D5000 CSC_0017.JPG
12/06/2009 11:19:49

FINE
 4288x2848





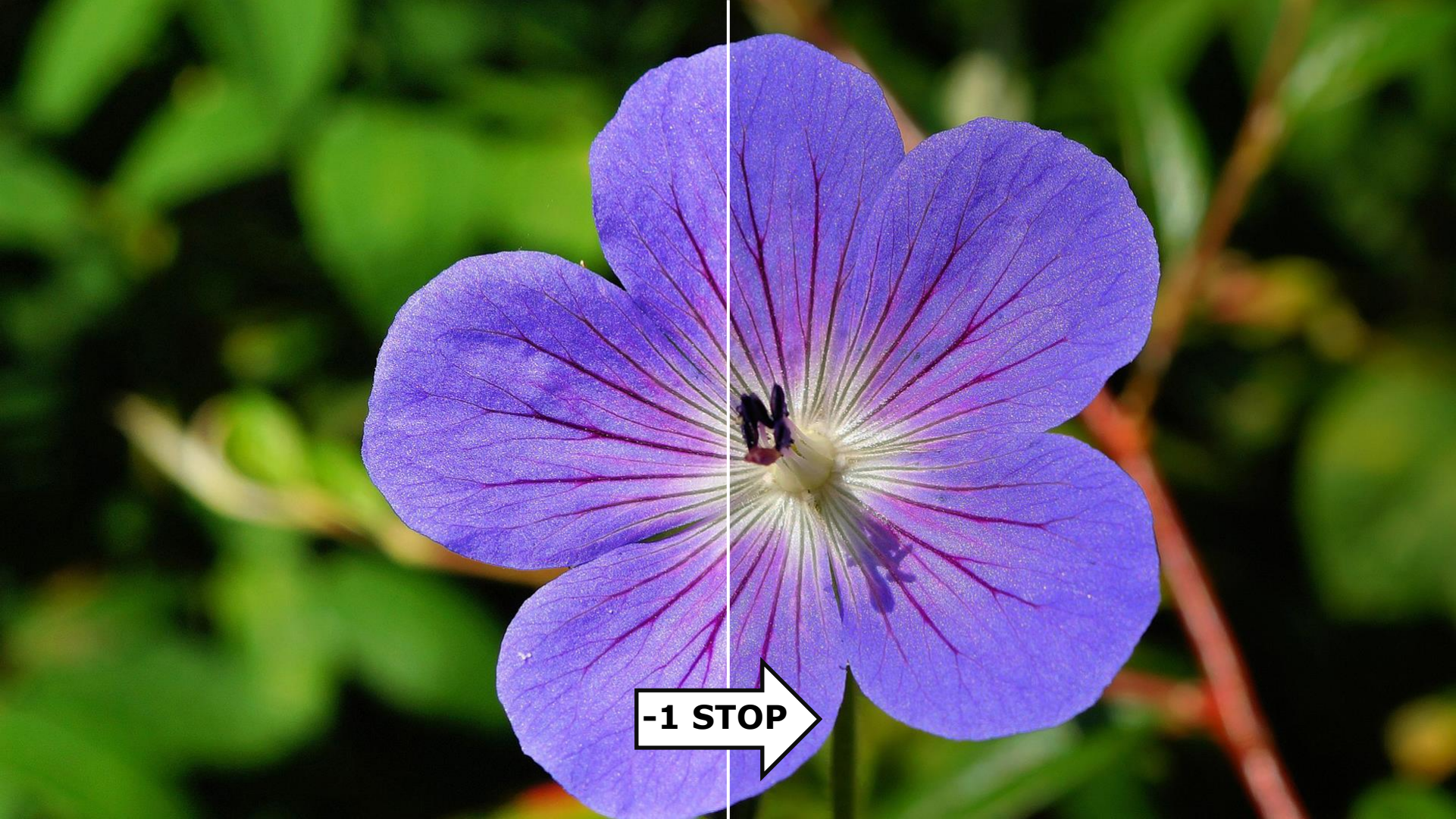
9.3

Toon en kleur









-1 STOP

9.4

Bracketing





Flash icon

Flash button

BKT

D7100

e Bracketing/flash

- e1 Flash cntrl for built-in flash M
- e2 Auto bracketing set AE**
- f1 Assign Fn button ISO
- f2 Assign AE-L/AF-L button
- f3 Assign touch Fn
- f4 Reverse dial rotation --

e2 Auto bracketing set

- AE AE bracketing**
- WB WB bracketing
- ADL ADL bracketing



-2 STOPS

-1 STOP

9.5

Oefening compensatie





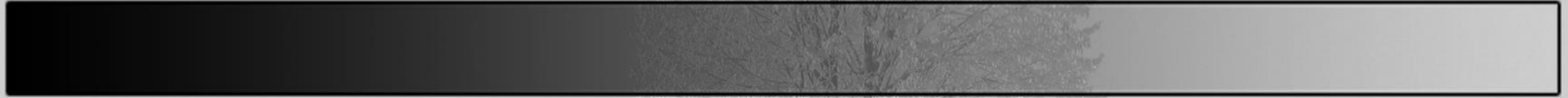


10

**DYNAMISCH
BEREIK**



HET MENSELIJK OOG



CMOS/CCD SENSOR



AUTO  x 1/250 K ΔF 5.6



BASIC  RAW+ FINE   AF-A  ISO 100  WB* AUTO2 AUTO 1600 [1.0] K

AUTO



SLOW REAR



RAW+ BASIC

RAW+ FINE



6

+1.3



OFF N H



0]k

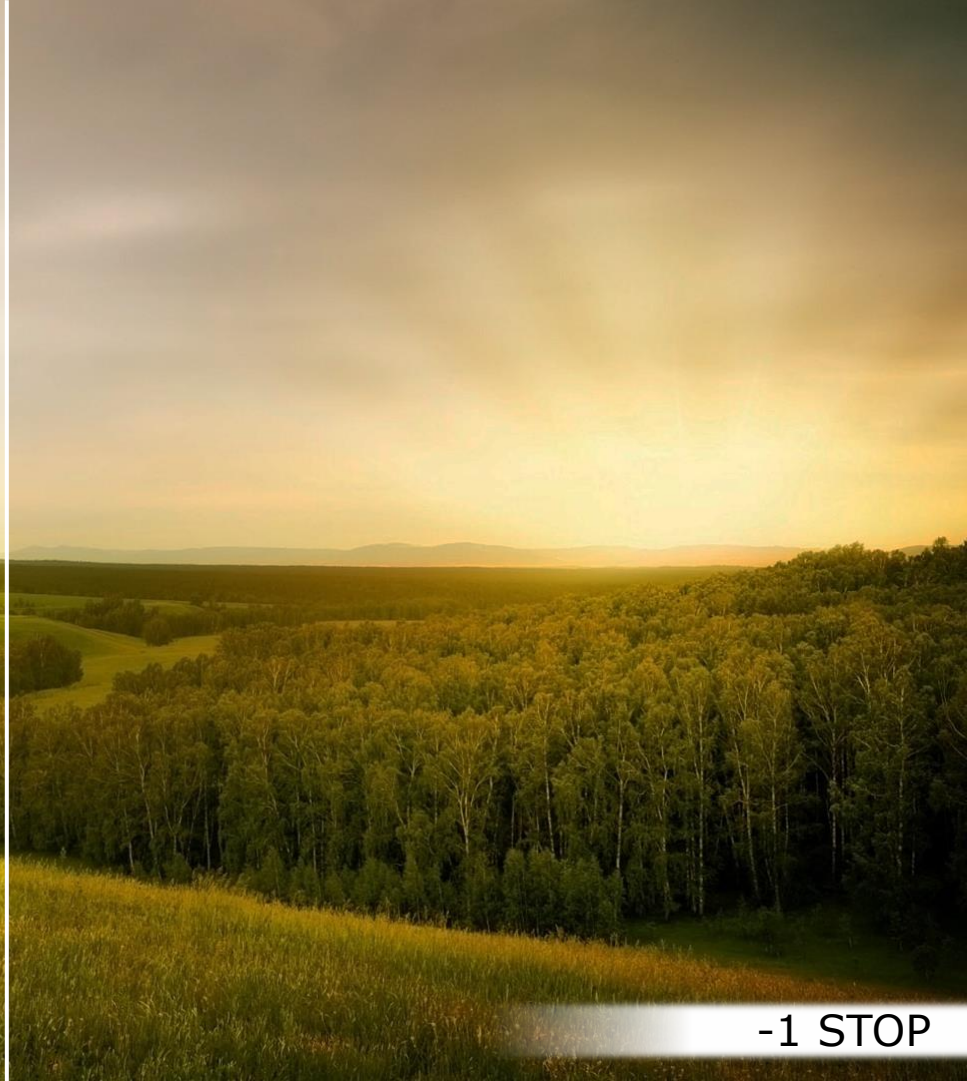


10.2

Felle lichten







-1 STOP

10.3

De flitser











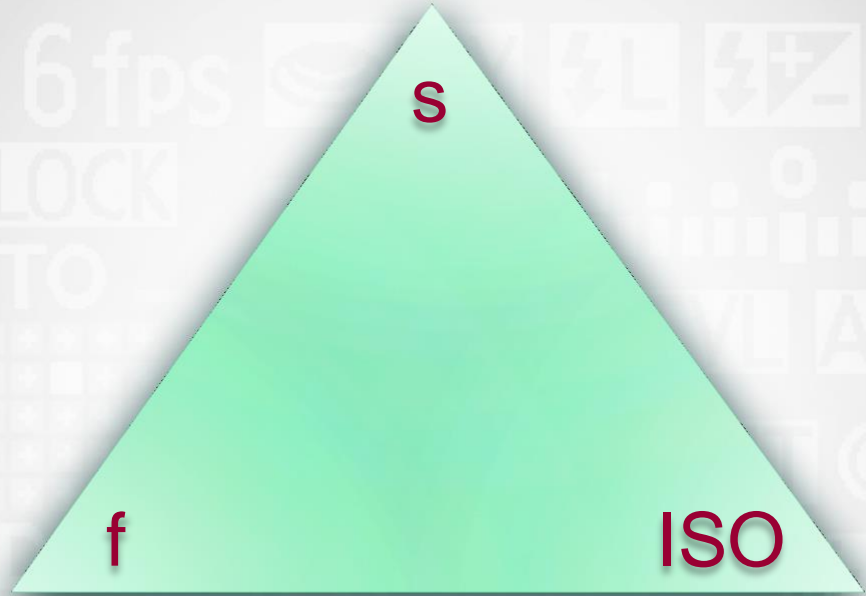
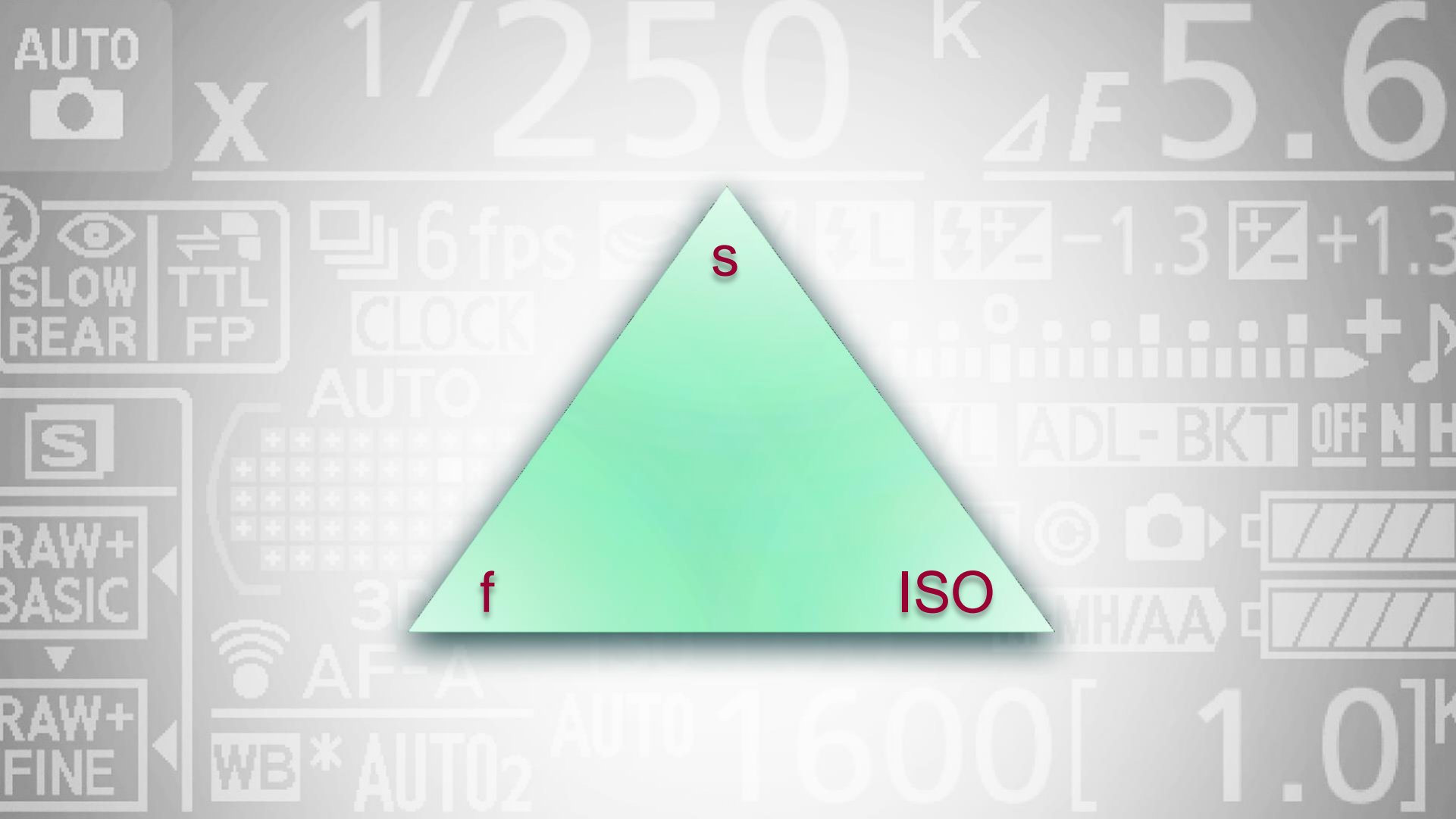


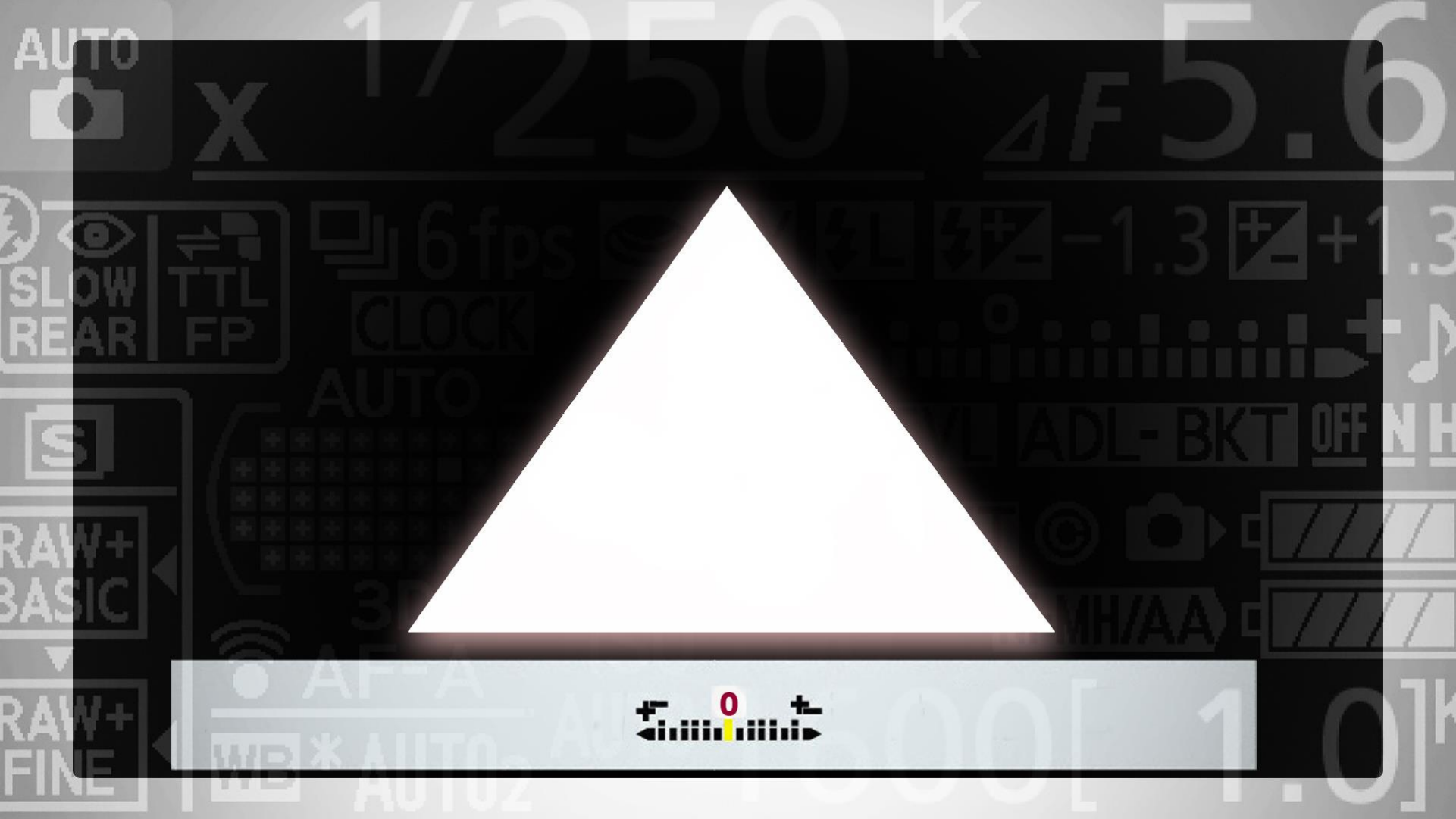
11

MANUELE PRIORITÄTSTAND









AUTO



1/250 k 5.6

SLOW REAR
 TTL FP
 6 fps
 CLOCK
 ADL-BKT OFF
 NH

RAW+ BASIC
 RAW+ FINE
 AF-A
 WB* AUTO
 H/AA









f16

s1/100

ISO 100



f11

s1/200

ISO 100



f8

s1/400

ISO 100



f5.6

s1/800

ISO 100



f4

s1/1600

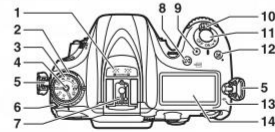
ISO 100

Inleiding

Kennismaking met de camera

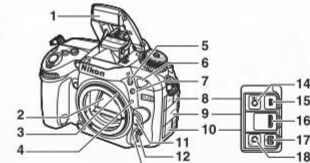
Neem even de tijd om vertrouwd te raken met de camerabedieningen en schermen van de camera. Leg eventueel een bladwijzer in dit hoofdstuk zodat u het gemakkelijk kunt terugvinden terwijl u de rest van de handleiding leest.

De camerabody



1 Stereomicrofoon	163, 192, 273	7 Accessoireschoen (voor optionele filter)	311, 319
2 Keuzeknop ontspanstand	8, 66	8 $\frac{1}{2}$ / eel-knop	106, 289
3 Standknop	6	9 Filmpopnameknop	163
4 Ontgrendelingsknop van standknop	6	10 Hoofdschakelaar	5, 24
5 Dogge voor camerariem	20	11 Ontspanknop	34, 35
6 Ontgrendelingsknop keuzeknop ontspanstand	8, 66	12 $\frac{1}{2}$ knop	109, 194
		13 Film- $\frac{1}{2}$ knop	98
		14 Bedieningspaneel	9

De camerabody (vervolg)



AUTO



X



SLOW REAR

S

RAW+ BASIC

RAW+ FINE



AF

WB*

AUTO



EINDE

EINDE