

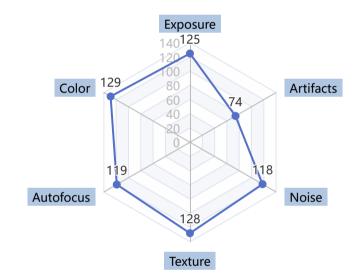
1.0 Camera Report

	DXOMAR	K Camera	
	16	51	
Lowlight	Indoor	Outdoor	Tele
137	165	177	130

	Camera	a Photo	
	1	58	
Lowlight	Indoor	Outdoor	Portrait
134	161	170	143
Photo ((Wide)	16	58
Close-up	(Bonus)	4	
Photo Ult	ra-Wide	13	7
Photo	Tele	13	3
Photo I	Bokeh	16	0

Wide scores detailed by attributes:

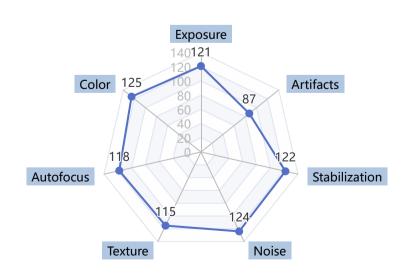
Exposure	125
Color	129
Autofocus	119
Texture	128
Noise	118
Artifacts	74



	Camera	a Video		
	16	56		
Lowlight	Ind	oor	Outo	loor
141	16	59	18	34
Video (Wide)			179	
Video Ultra-Wi	de		145	
Video Tele			122	

Wide scores detailed by attributes:

121
125
118
115
124
122
87



Higher scores mean better quality.

AppleiPhone16ProMax **DxOMark** Camera Report Table of contents

Table of contents			
		150.0	
1.1. Summary	4	4.5.0. Scores	
1.0. Camera Report	1	4.5.1. Artifacts technical overview	
2.1. Table of contents		4.5.2. Artifacts measurements	
3.1. Photo - Exposure	2	4.5.3. Natural scene - perceptual scores4.6. Video - Stabilization	
3.1.0. Scores	3		8
3.1.2. Exposure and contrast measurements		4.6.0. Scores	
3.1.3. AFHDR Portrait		4.7. Video - Zoom	
3.2. Photo - Color		4.7.0. Scores	82
3.2.0. Scores	9	4.7.1. Zoom video technical overview	82
3.2.1. Color technical overview	9	4.7.2. Objective measurements	
3.2.2. White balance accuracy		5.1. Illuminants - Photo setups	
3.2.3. Color rendering accuracy		5.1.0. Photo - Illuminants correspondence tables per setup	88
3.2.4. Color shading	14	5.1.1. AFHDR	
3.3. Photo - Autofocus		5.1.2. DMC	
3.3.0. Scores	15	5.1.3. ColorChecker	
3.3.1. Autofocus technical overview	16	5.1.4. Greychart	
3.3.2. Autofocus irregularity and speed	18	5.1.5. AFHDR Portrait Eugene	
3.4. Photo - Texture and noise		5.1.6. DMC Photo Zoom	
3.4.0. Scores	35	5.2. Illuminants - Video setups	
3.4.1. Texture and noise technical overview		5.2.0. Video - Illuminants correspondence tables per setup	9
3.4.2. Texture and noise measurements	39	5.2.1. DMC	
3.5. Photo - Artifacts		5.2.2. Deadleaves	
3.5.0. Scores	48	5.2.3. Visual Noise	
3.5.1. Artifacts technical overview	48	5.2.4. ColorChecker	92
3.5.2. Artifacts measurements	49	5.2.5. Greychart	
3.6. Photo - Zoom		5.2.6. Timing	
3.6.0. Scores	51	5.2.7. DMC Video Zoom	
3.6.1. Zoom range technical overview		3.E.7. Billio Video 250111	
3.6.2. Objective measurements			
3.7. Photo - Bokeh			
3.7.0. Scores	56		
3.7.1. Bokeh technical overview			
4.1. Video - Exposure			
4.1.0. Scores	57		
4.1.1. Objective Scores			
4.1.2. Objective Measurements - Static Attributes			
4.1.3. Objective Measurements - Dynamic Attributes			
4.1.4. Objective Measurements - Temporal Attributes			
4.1.5. Perceptual Scores			
4.1.6. Target exposure from 1 to 2000 lux on Colorchecker® chart			
4.1.7. Convergence and oscillation times	60		
4.1.8. Face exposure per lighting conditions on AF HDR Portrait Setup -	62		
Diana			
4.1.9. Face exposure per lighting conditions on AF HDR Portrait Setup -	63		
Eugene			
4.2. Video - Color			
4.2.0. Scores	64		
4.2.1. Color technical overview	64		
4.2.2. White balance from 1 to 1000 lux			
4.2.3. Color rendering measurements			
4.2.4. Color shading			
4.3. Video - Autofocus			
4.3.0. Scores	71		
4.3.1. Autofocus technical overview	71		
4.4. Video - Texture and noise			
4.4.0. Scores	72		
4.4.1. Texture technical overview			
4.4.2. Noise technical overview	73		
4.4.3. Texture noise perceptual scores	73		
4.4.4. Texture and noise measurements	75		
4.5. Video - Artifacts			

3.1.0	Scores		
		Exposure	
		125	
	Scores per scene type		
	Lowlight	Indoor	Outdoor
	129	119	127

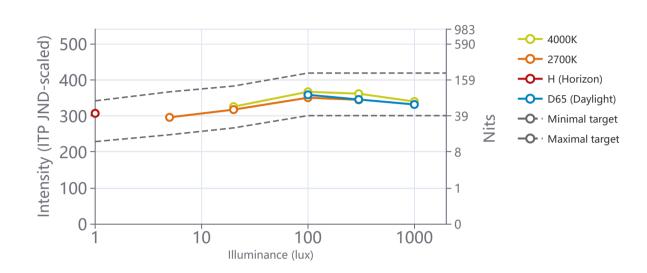
		Objectiv	ve me	asurer	nents				
III	umination (lux)		5	20	100	300	1000	10000	
Target exposure	(I JND-scaled): Colo	rChecker©	295	317	366	361	331		
Target exposure (I JN	D-scaled): DeadLea	aves on AFHDR	266	284	343	346	338	337	
Target exposure (I JN	D-scaled): DXOMA	RK chart (DMC)	280	281	325	284	302		
Face exposure (I JND	-scaled): Diana on A	AFHDR Portrait	267		280		296	297	
Face exposure (I JND-	scaled): Eugene on	AFHDR Portrait	344		364		385	384	
		Perc	eptua	al scor	es				
Lowlight	Indoor	Outdoor							
8	6	7							

3.1.1.0 Target exposure per lighting condition on Landscapes

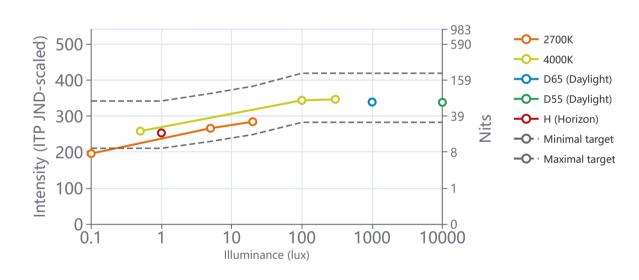
The graphs on this section show the evolution of the intensity with the level of lux, for multiple lighting conditions.

The left y axis represents the measured values in the ITP JND-scaled color space, derived from recommendation ITU-R BT.2124-0 and the right y axis represents the values in nits on a reference display with a HDR reference white luminance of 203nits. The area between the dotted lines represents the region where the intensity is considered correct.

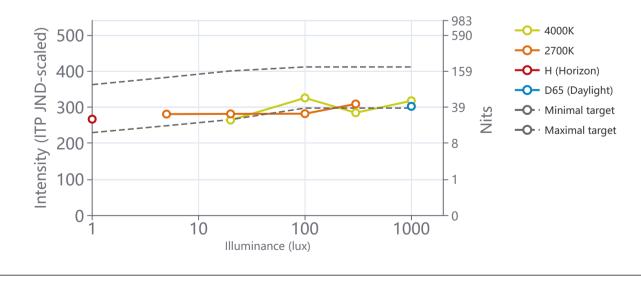
On this graph, intensity is measured on the 18% gray patch of the Colorchecker (see section 2.2 for snapshots).



On this graph, intensity is measured on the 18% patch of the DeadLeaves from the AFHDR setup.



On this graph, intensity is measured on the Portrait crop of the DMC Chart (see section 2.1 for snapshots)

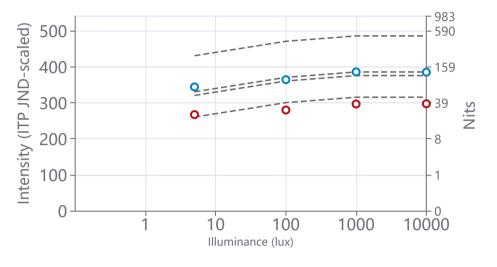


3.1.1.1 Target exposure per lighting condition on Portraits

The graphs on this section show the evolution of the intensity with the level of lux, for multiple lighting conditions.

The left y axis represents the measured values in the ITP JND-scaled color space, derived from recommendation ITU-R BT.2124-0 and the right y axis represents the values in nits on a reference display with a HDR reference white luminance of 203nits. The area between the dotted lines represents the region where the intensity is considered correct.

On this graph, intensity is measured on the forehead of the mannequin for the AFHDR Portrait setup.



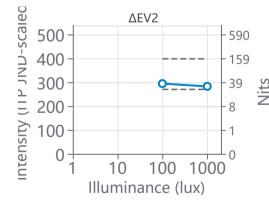
- -O- AFHDR Portrait Eugene 2700K
- → AFHDR Portrait Diana 2700K
- → AFHDR Portrait Diana 4000K
- -O- AFHDR Portrait Eugene D65 (Daylight)
- → AFHDR Portrait Diana D65 (Daylight)
- —O— AFHDR Portrait Eugene D55 (Daylight)
- AFHDR Portrait Diana D55 (Daylight)
- **−O** · Minimal target Diana
- **−O** · Minimal target Eugene
- **−O** · Maximal target Diana
- -O- · Maximal target Eugene

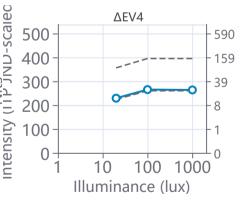
3.1.1.2 Dynamic per lighting condition on Landscapes

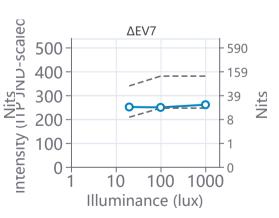
This table displays the mean I JND-scaled value on the 18% gray patch on the DeadLeaves and the mean dynamic on the HDR charts. They are measured on the AFHDR setup.

	270	00К		4000K			Daylight	
Illumination (lux)	2	0		100			1000	
ΔΕV	4	7	2	4	7	2	4	7
l JND-scaled (18% gray patch)	231	253	296	267	251	285	266	262
Dynamic	8	7	8	8	7	7	8	7

Intensity (measured in I JND-scaled) on the Deadleaves for HDR conditions at different EV level.





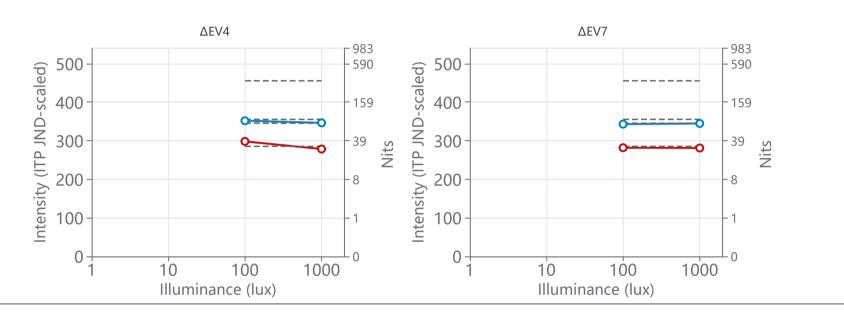


3.1.1.3 Dynamic per lighting condition on Portraits

This table displays the mean I JND-scaled value on the realistic mannequin forehead and the mean dynamic on the HDR chart. They are measured on the AFHDR Portrait setup.

		AFHD	R Portrait	Diana			AFHDF	R Portrait I	Eugene	
	2700K	400	00К	Day	ight	2700K	400	ОК	Dayl	ight
Illumination (lux)	5	10	00	10	00	5	10	00	10	00
ΔΕV	9	4	7	4	7	9	4	7	4	7
I JND-scaled (forehead)	223	298	281	278	281	281	351	343	346	344
Dynamic	4	7	4	7	6	5	7	5	8	6

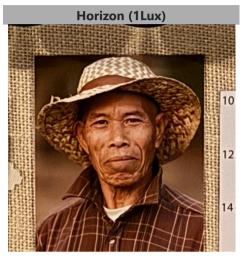
Intensity (measured in I JND-scaled) on the forehead for HDR conditions at different EV level.

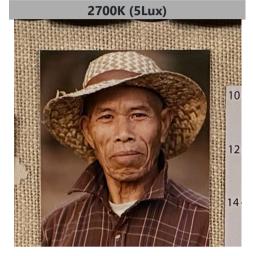


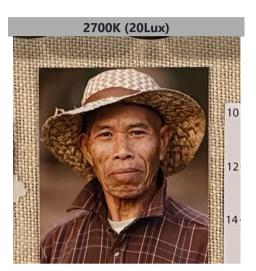
3.1.2 Exposure and contrast measurements

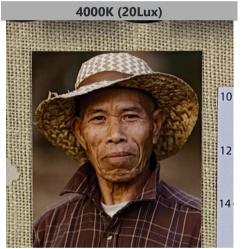
3.1.2.0 DXOMARK natural scene (DMC): portrait crop

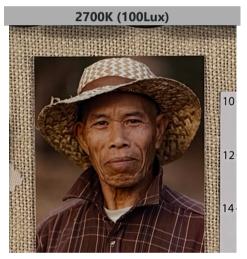
Crops per illuminant, handheld camera.

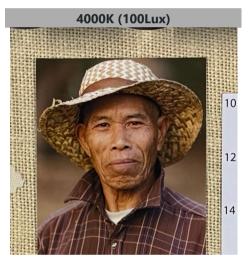


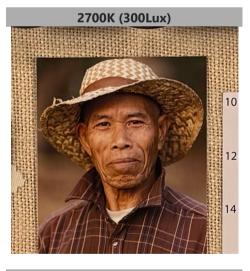


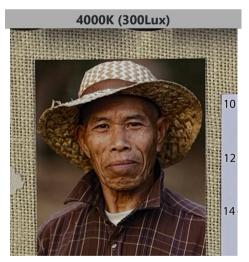


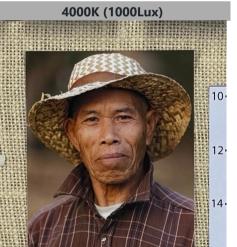


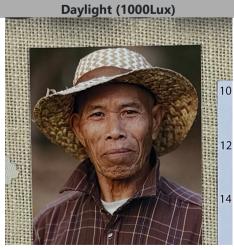












3.1.3 AFHDR Portrait

These tables display the value of DXOMARK local contrast gain measured on the backlit panels of the AFHDR Portrait setup. The lower the value, the higher is the amount of local tone compression in the highlights. Local Contrast Gain can be interpreted as the average exponent value of the OOTF: displayluminance ~ scene^(LCG/100). A value of 50% corresponds to a gamma curve of 2.

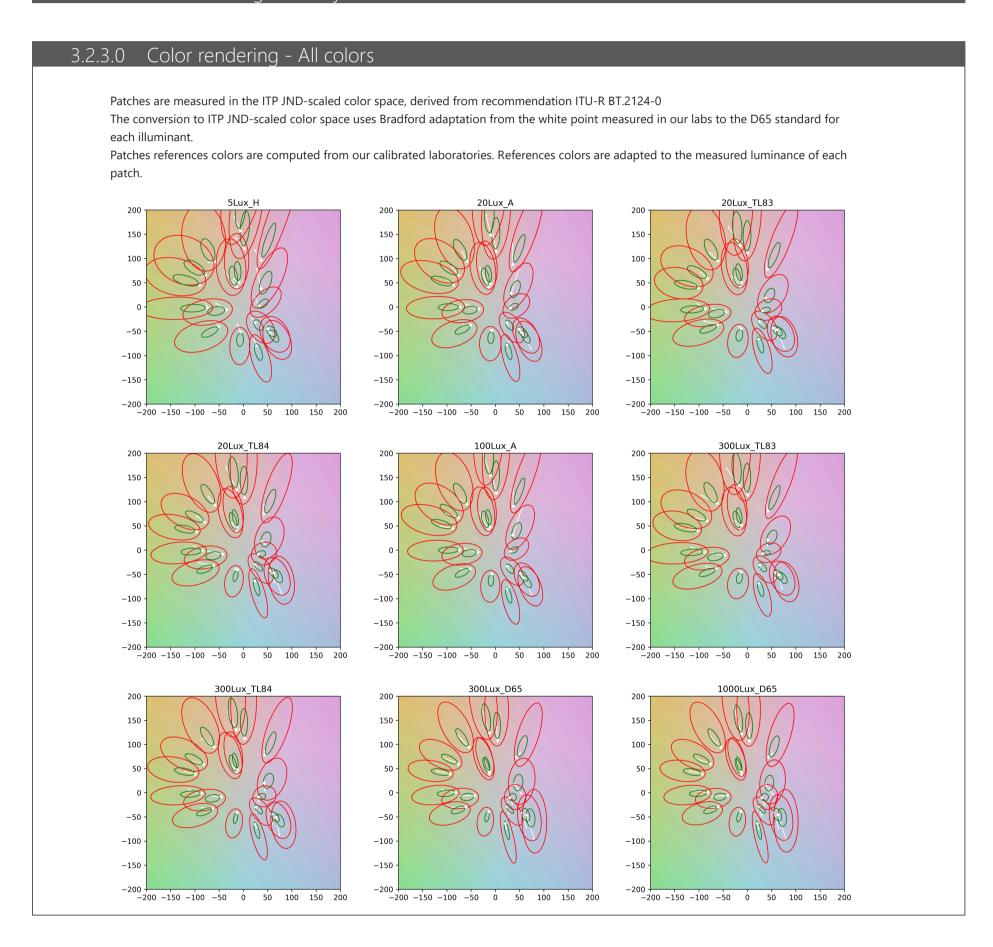
		AFHDR	Portrait	Diana			AFHDR	Portrait	Diana	
	2700K (5 lux)	4000K	(100 lux)	Daylight	(1000 lux)	2700K (5 lux)	4000K	(100 lux)	Daylight ((1000 lux)
ΔEV (stops)	9	4	7	4	7	9	4	7	4	7
Local Contrast Gain (%)	5	38	5	43	12	6	47	8	50	16
Local Contrast Gain StdDev (%)	0	1	0	1	0	0	2	0	2	1

3.2.0	Scores		
		Color	
		129	
	Scores per scene type		
	Lowlight	Indoor	Outdoor
	120	131	134

	ilcai ove	erview						
				Obje	ctive scor	es		
		Lowlight	Indoor	Outdoo	or			
Color render	ing	68	74	81				
White balance ac	curacy	92	66	24				
Color uniforn	nity	63	32	81				
		Obje	ective sco	ores - de	tail per li	ghting o	conditions	
		Lux	3000K	4000K	Daylight	2700K	Horizon	
		5	56			68	55	
	Lowlight	20	71	76		75	63	
Color rendering	Indoor	100	68	78	79	80		
		300	70	81	83	58		
	Outdoor	1000	79	83	81			
		Lux	3000K	4000K	Daylight	2700K	Horizon	
	Lowlight	5	100			99	94	
,	Lowingin	20	91	74		95	100	
White balance	Indoor	100	86	65	13	87		
		300	84	62	13	68		
	Outdoor	1000	69	61	10			
		Lux	3000K	4000K	Daylight	2700K	Horizon	
				71		50	64	
	Lowligh	t 20	68	71				
Color uniformity	Lowligh Indoor	300	5	48	85	9		
Color uniformity		300	5		85 88	9		
Color uniformity	Indoor	300	5	48 70				
Color uniformity	Indoor	300 r 1000	5	48 70 Perce	88			
Color uniformity White bala	Indoor	300 r 1000	5 33	48 70 Perce	88			
	Indoor Outdoo	300 r 1000	5 33 Perceptual	48 70 Perce	88			

3.2.2 White balance accuracy Patches are measured in the ITP JND-scaled color space, derived from recommendation ITU-R BT.2124-0 The conversion to ITP JND-scaled color space uses Bradford adaptation from the white point measured in our labs to the D65 standard for each illuminant. Patches references colors are computed from our calibrated laboratories. References colors are adapted to the measured luminance of each 2700K 3000K 4000K Horizon 2700K 3000K 4000K **Daylight Daylight** (300 (300 Illuminant (100 (5 lux) (20 lux) (20 lux) (20 lux) (300 lux) (1000 lux) lux) lux) lux) **WB** 8.0 0.3 0.5 0.3 0.2 0.2 0.6 0.5 0.4 repeatability 5Lux_H 20Lux_A 20Lux_TL83 40 30 30 30 20 20 20 10 10 10 -30 -40 -40 -30 -20 -10 0 -40 -40 -30 -20 -10 0 10 -30 -20 -10 20Lux_TL84 100Lux_A 300Lux_TL83 40 30 30 30 20 20 20 10 10 10 -10-10 -10-20 -20 -20 -30 -30 -30 -20 -10 0 10 -20 -10-30 -20 -10 0 10 300Lux_TL84 300Lux_D65 1000Lux_D65 40 30 30 20 20 20 10 10 10 0 -10 -10-10-20 -20 -20-30 -30 -30

3.2.3 Color rendering accuracy



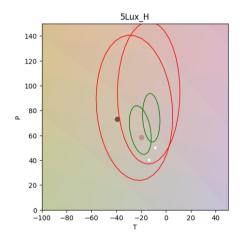
3.2.3.1 Color rendering - Skin tones

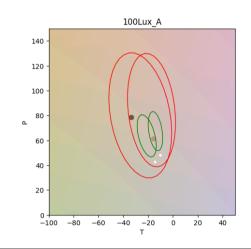
Patches are measured in the ITP JND-scaled color space, derived from recommendation ITU-R BT.2124-0

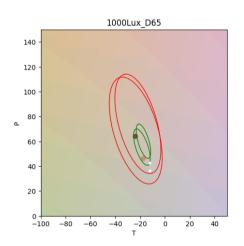
The conversion to ITP JND-scaled color space uses Bradford adaptation from the white point measured in our labs to the D65 standard for each illuminant.

Patches references colors are computed from our calibrated laboratories. References colors are adapted to the measured luminance of each patch.

		Lux	3000K	4000K	Daylight	2700K	Horizon
	Loudinht	5	45			68	68
	Lowlight	20	75	83		76	78
Skintone rendering	Indoor	100	68	82	87	87	
		300	72	88	96	71	
	Outdoor	1000	84	92	92		





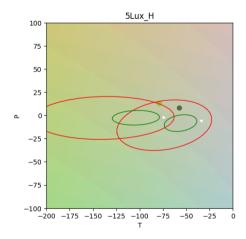


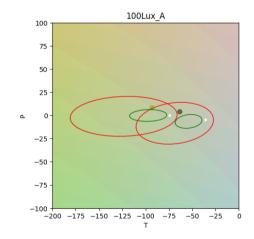
3.2.3.2 Color rendering - Greenery tones

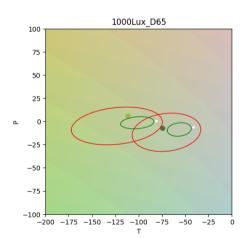
Patches are measured in the ITP JND-scaled color space, derived from recommendation ITU-R BT.2124-0

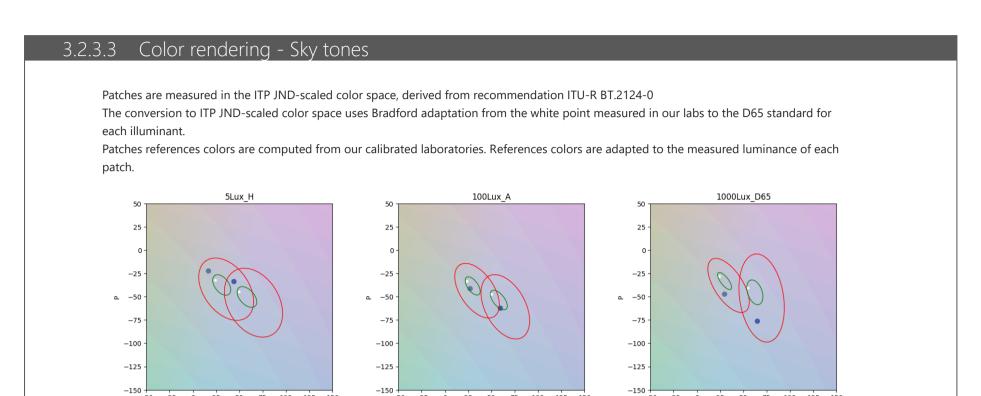
The conversion to ITP JND-scaled color space uses Bradford adaptation from the white point measured in our labs to the D65 standard for each illuminant.

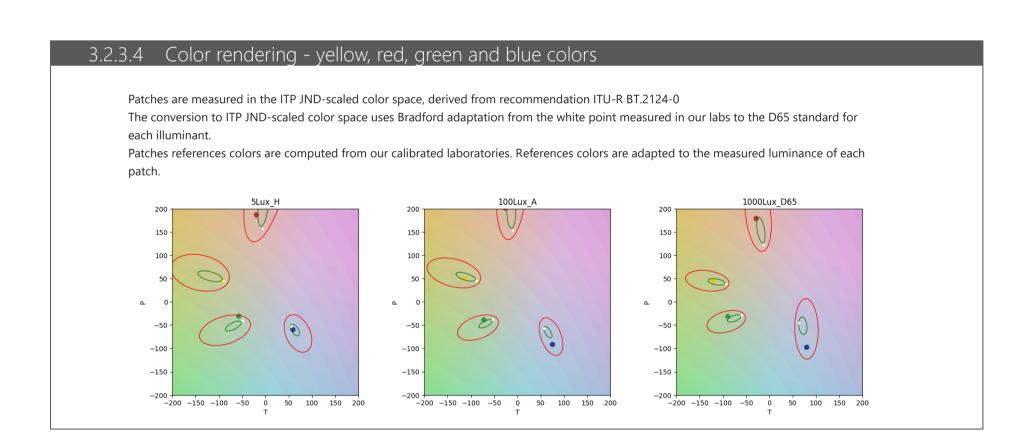
Patches references colors are computed from our calibrated laboratories. References colors are adapted to the measured luminance of each patch.



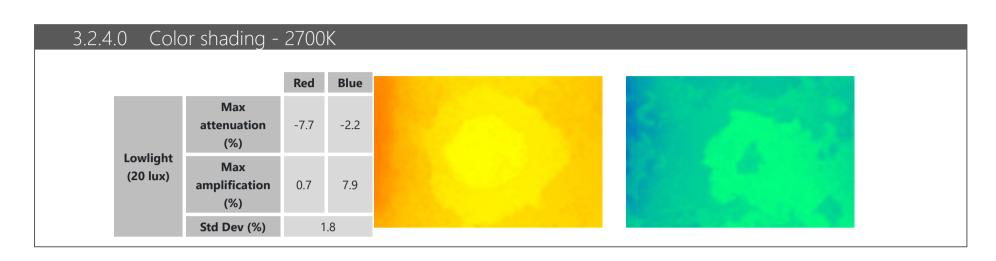




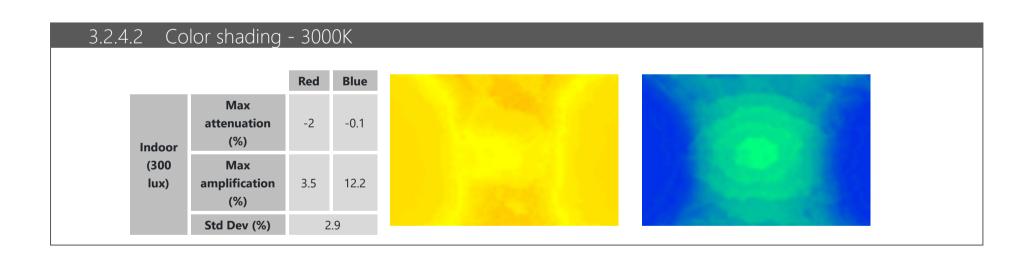


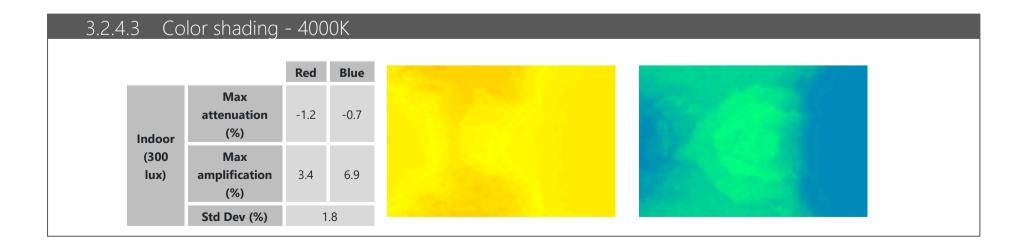


3.2.4 Color shading



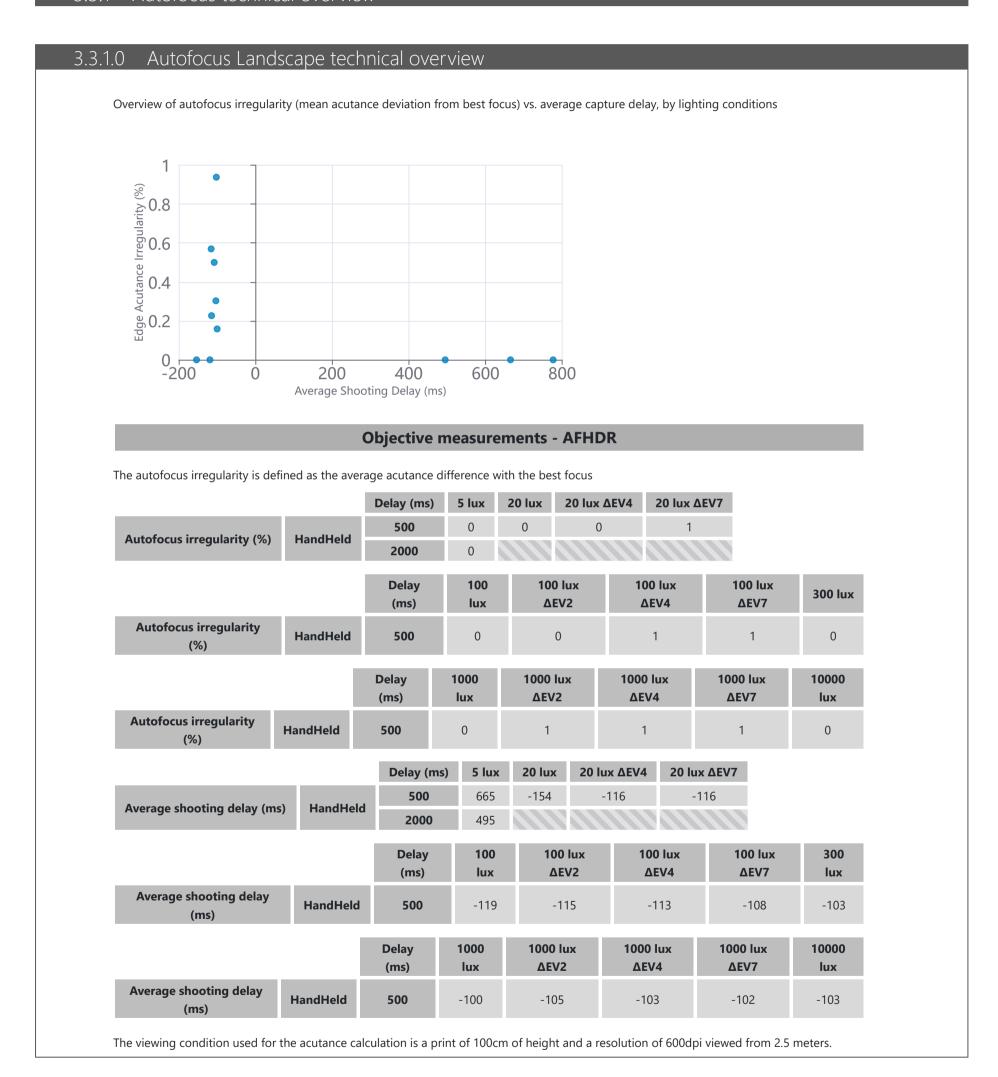






3.3.0	Scores			
		Autofo	cus	
		119		
!	Scores per scene typ	e and lighting cor	dition	
	Lowlight	Indoo	r	Outdoor
	106	125		125
	Scene	Lowlight	Indoor	Outdoor
	Landscape	94	99	99
	Family	50	83	87

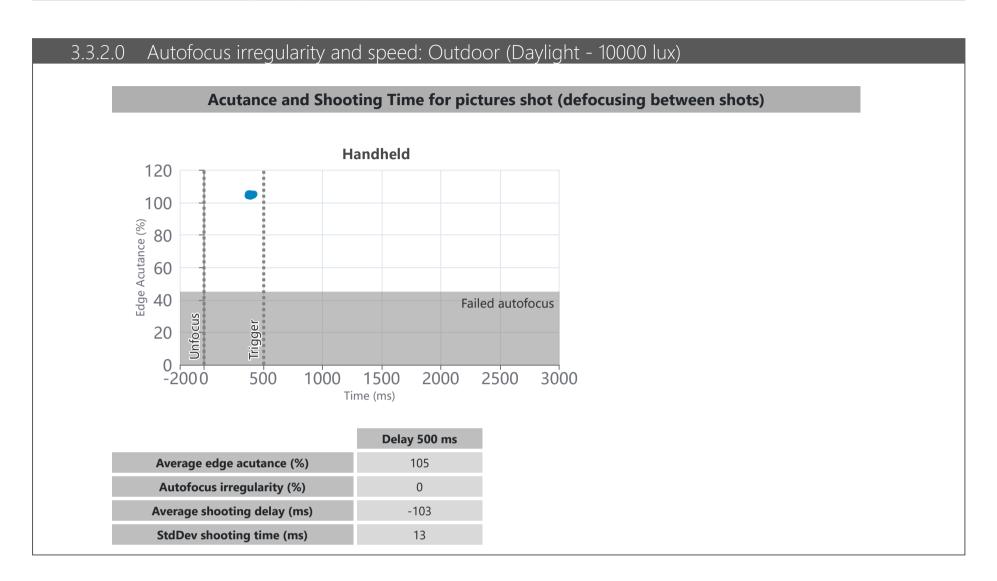
3.3.1 Autofocus technical overview

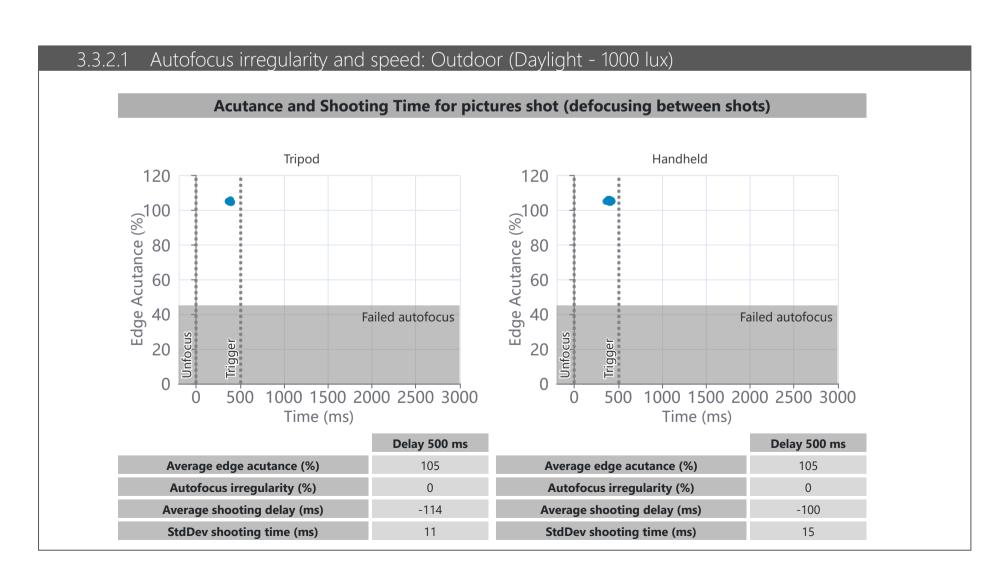


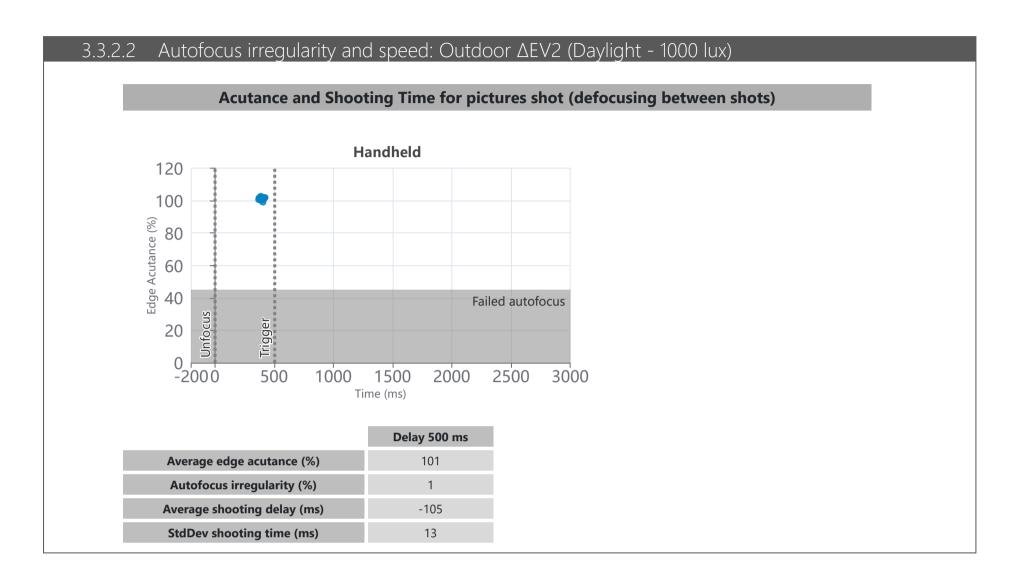
Autofocus Portrait technical overview **Objective measurements - AFHDR Portrait** The autofocus irregularity is defined as the average acutance difference with the best focus Mannequin Delay (ms) 5 lux 5 lux ΔEV9 Movement Diana StillStand1Hand 500 0 0.1 **Autofocus irregularity (JODs)** StillStand1Hand 500 **Eugene 100 lux ΔEV7** 100 lux ΔEV4 Mannequin Movement Delay (ms) 100 lux 0 Diana StillStand1Hand 500 0 **Autofocus irregularity (JODs)** StillStand1Hand 500 **Eugene Delay** 1000 1000 lux 1000 lux 10000 Mannequin Movement **ΔΕV4** ΔΕV7 lux (ms) lux StillStand1Hand 0 0 Diana **500** 0 **Autofocus irregularity** (JODs) StillStand1Hand **500** Mannequin Delay (ms) 5 lux ΔEV9 Movement 5 lux StillStand1Hand 1032 Diana **500** -170 Average shooting delay (ms) Eugene StillStand1Hand **500** 749 -162 100 lux 100 lux ΔEV4 100 lux ΔEV7 Delay (ms) Mannequin Movement Diana StillStand1Hand **500** -106 -115 -116 Average shooting delay (ms) StillStand1Hand -117 **Eugene** 500 -110 -115 1000 1000 lux 1000 lux 10000 Delay Mannequin Movement lux ΔEV4 ΔΕV7 lux (ms) Diana StillStand1Hand 500 -109 -107 -106 -115 **Average shooting** delay (ms) StillStand1Hand 500 -112 -106 428 **Eugene** -117 The viewing condition used for the acutance calculation is a print of 100cm of height and a resolution of 600dpi viewed from 2.5 meters.

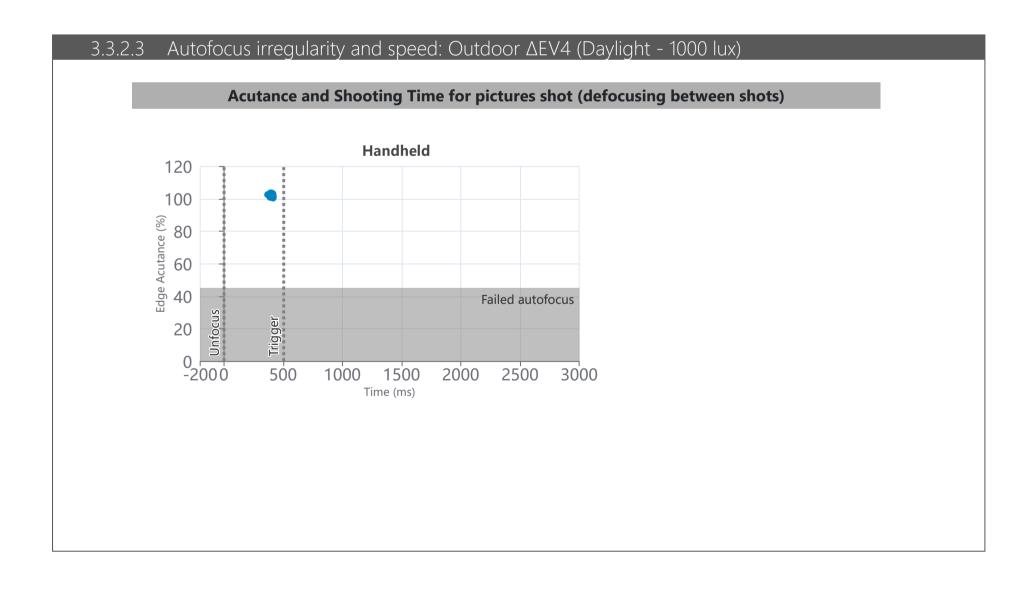
3.3.1.2 Autofocus	Perceptual ove	erview	
		Percept	tual scores
Outdoor	Indoor	Lowlight	
8	8	8	

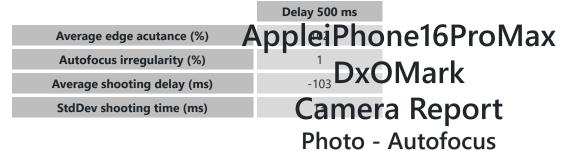
3.3.2 Autofocus irregularity and speed

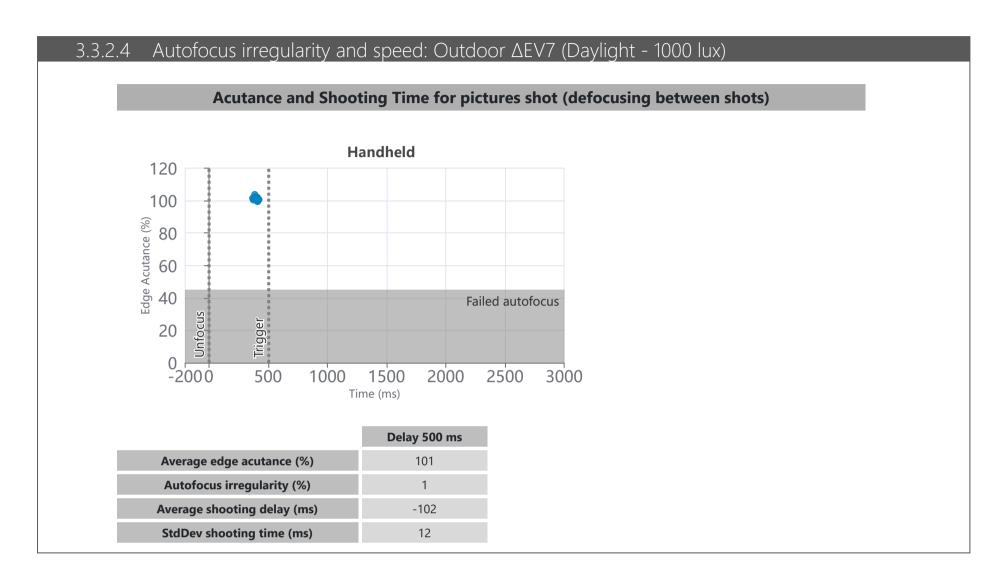


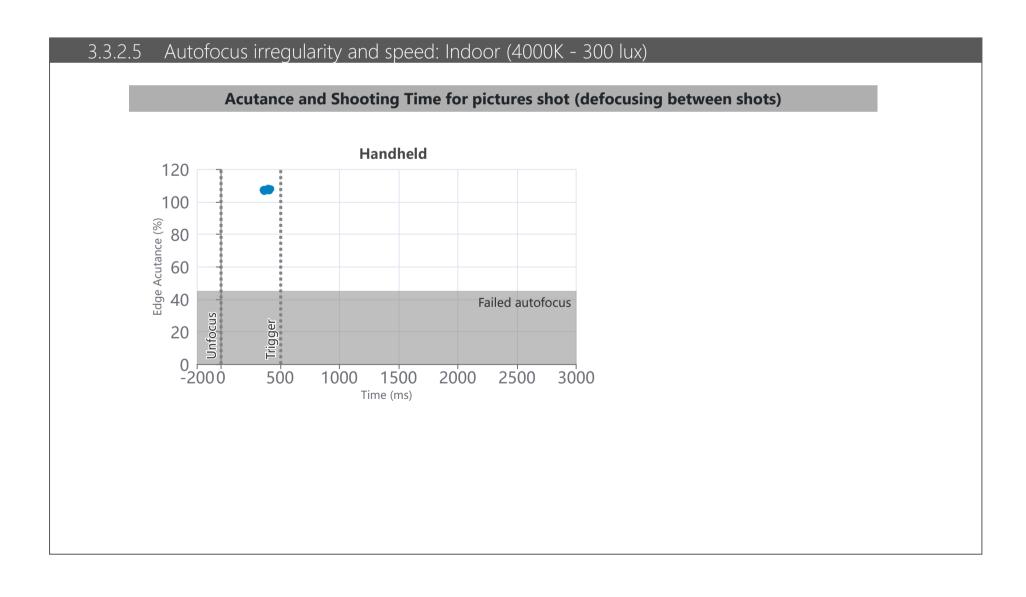


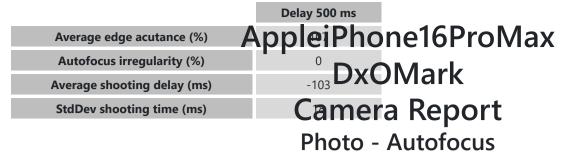


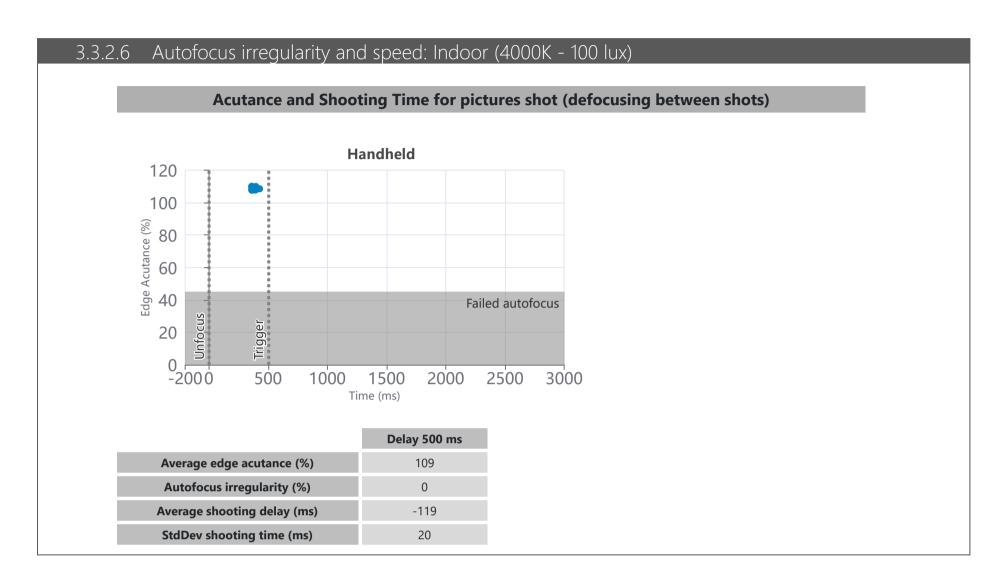


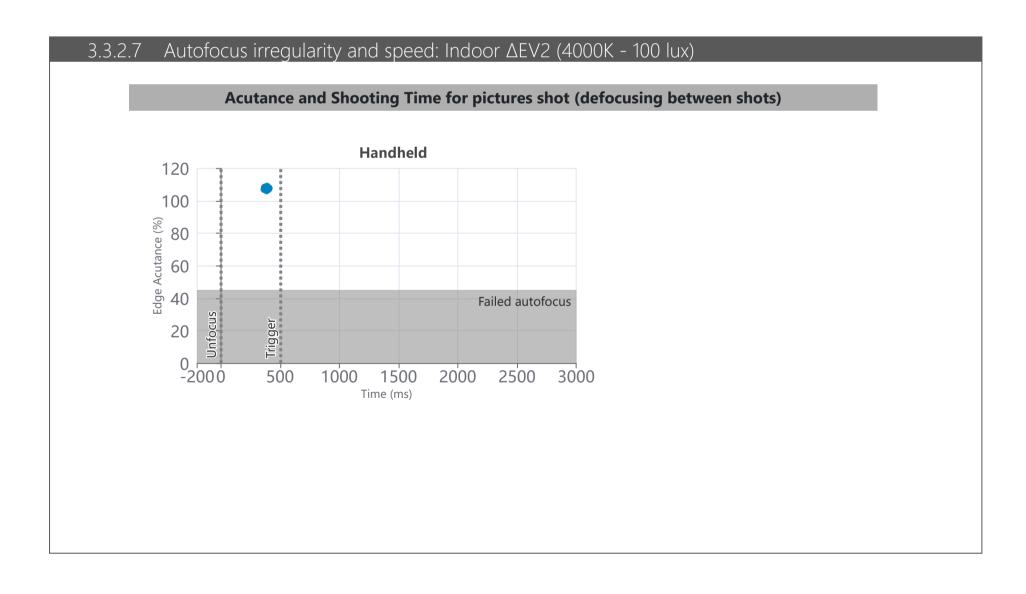


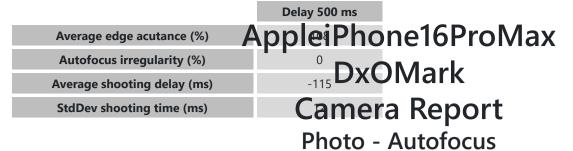


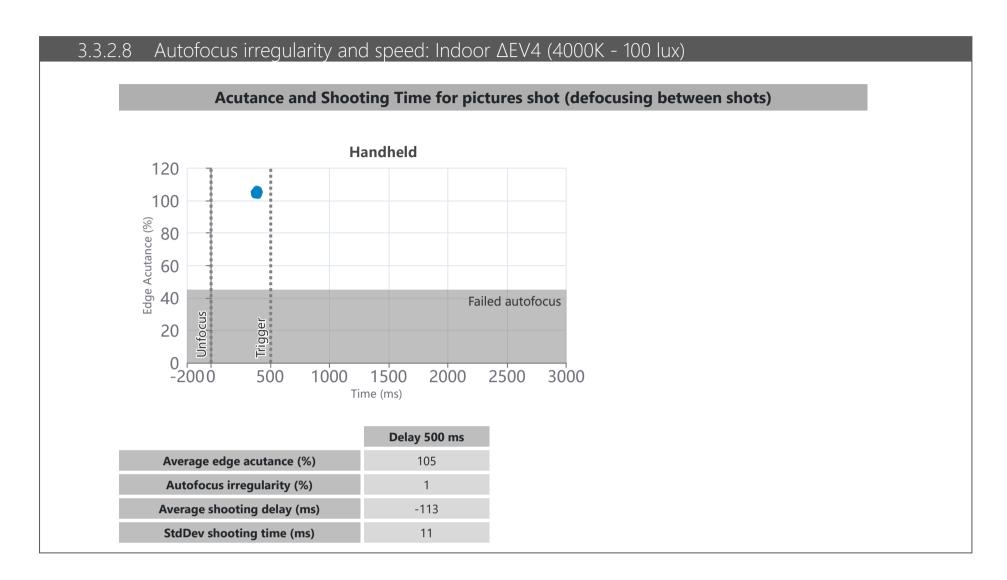


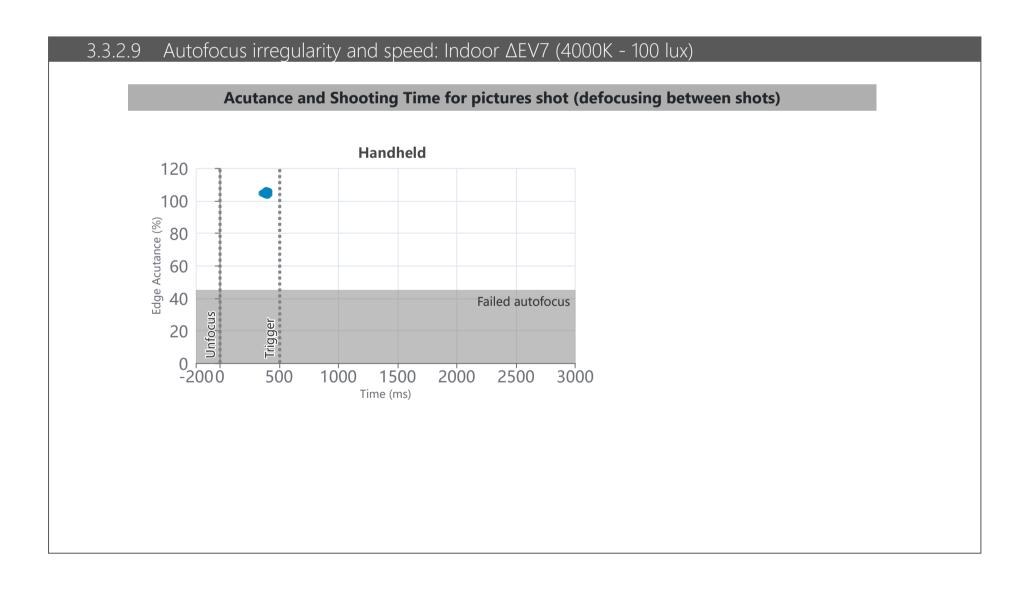


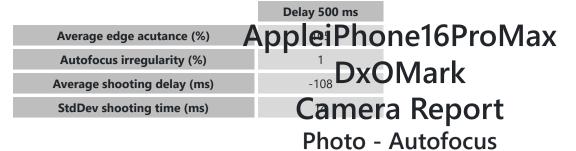


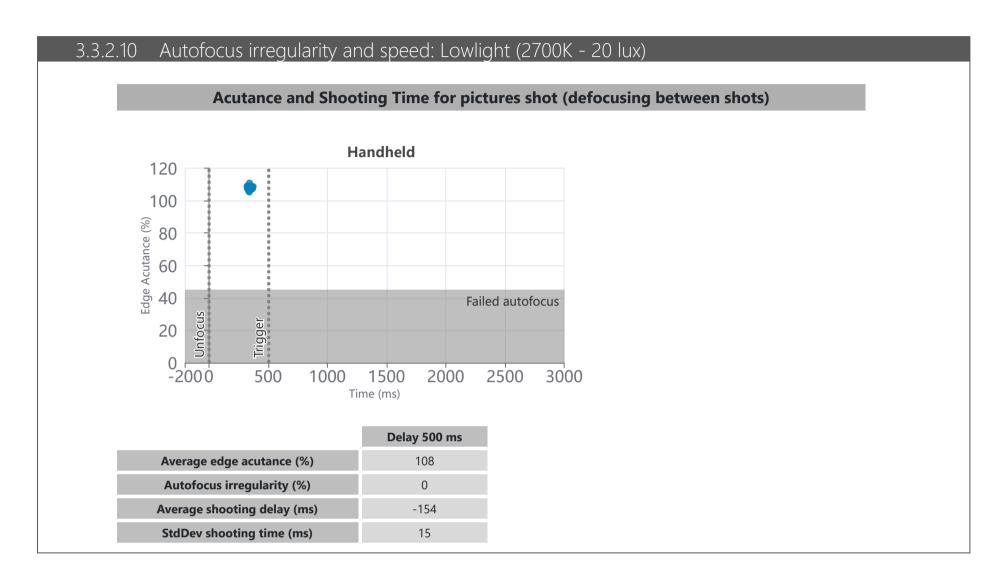


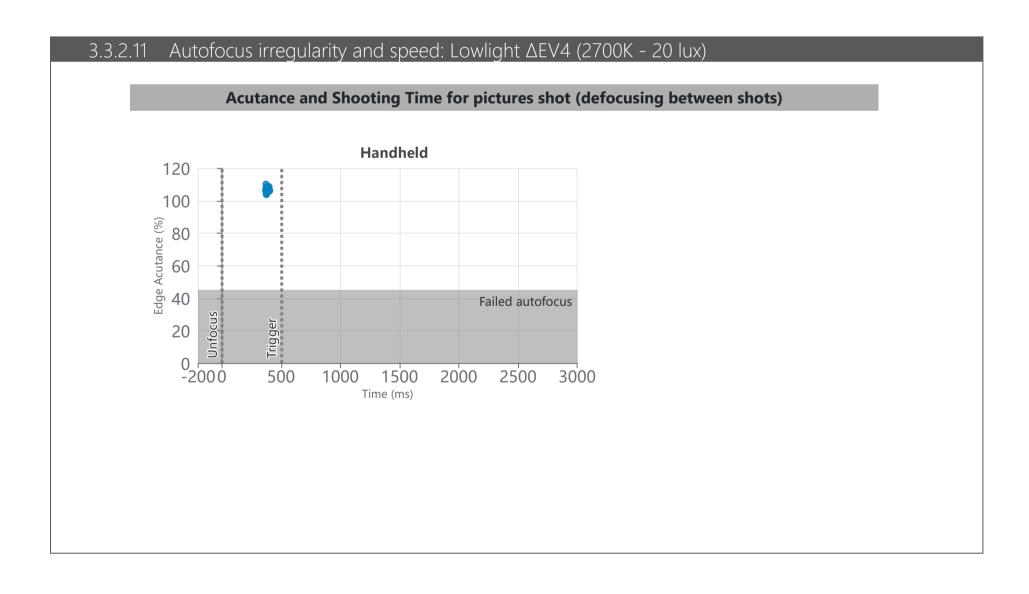




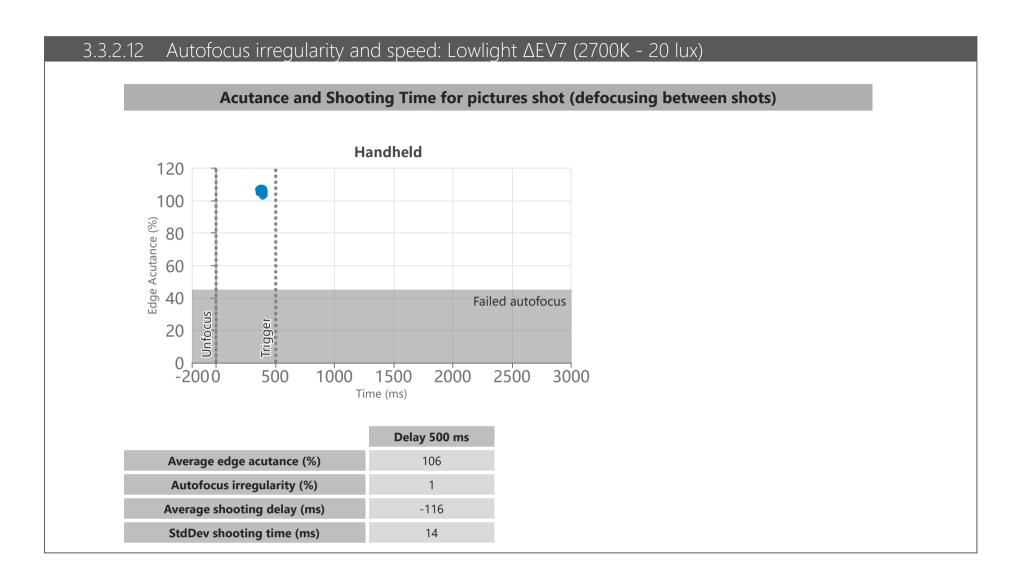


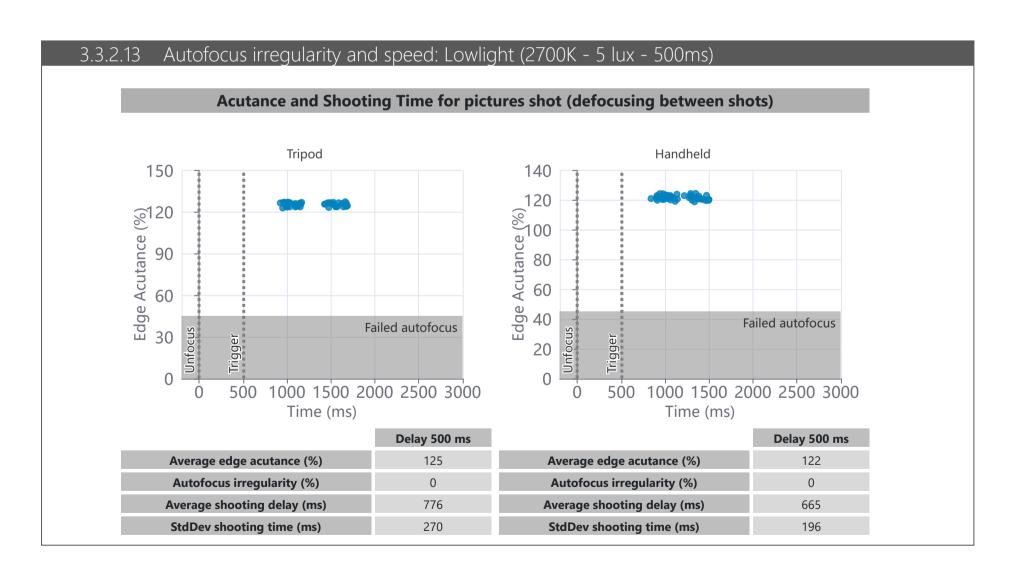


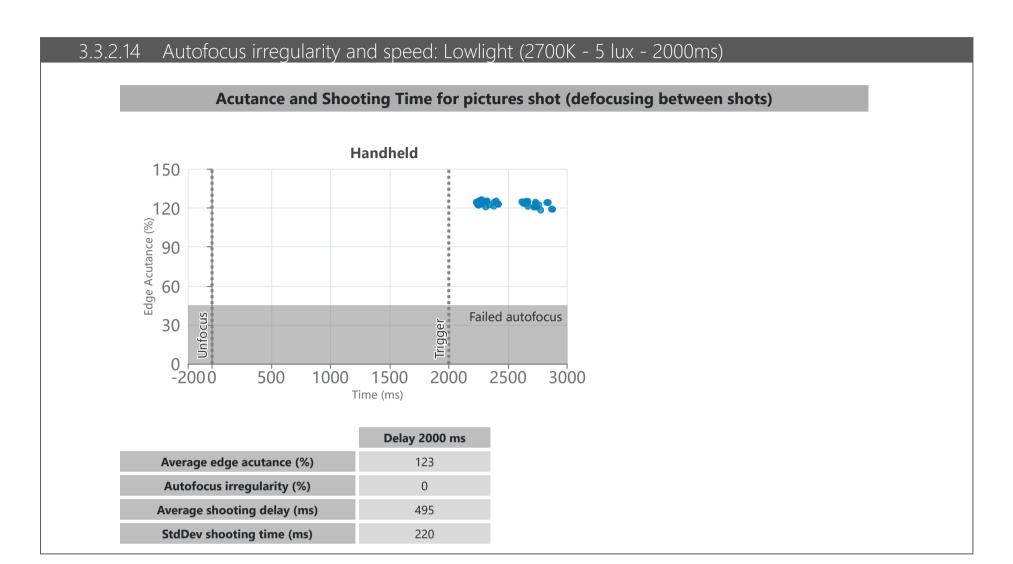


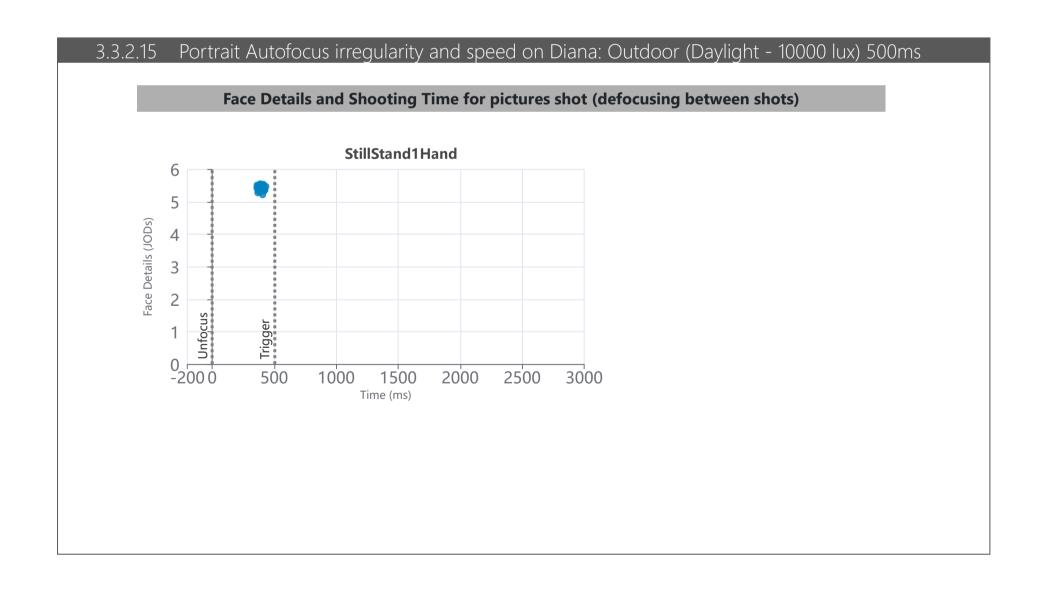


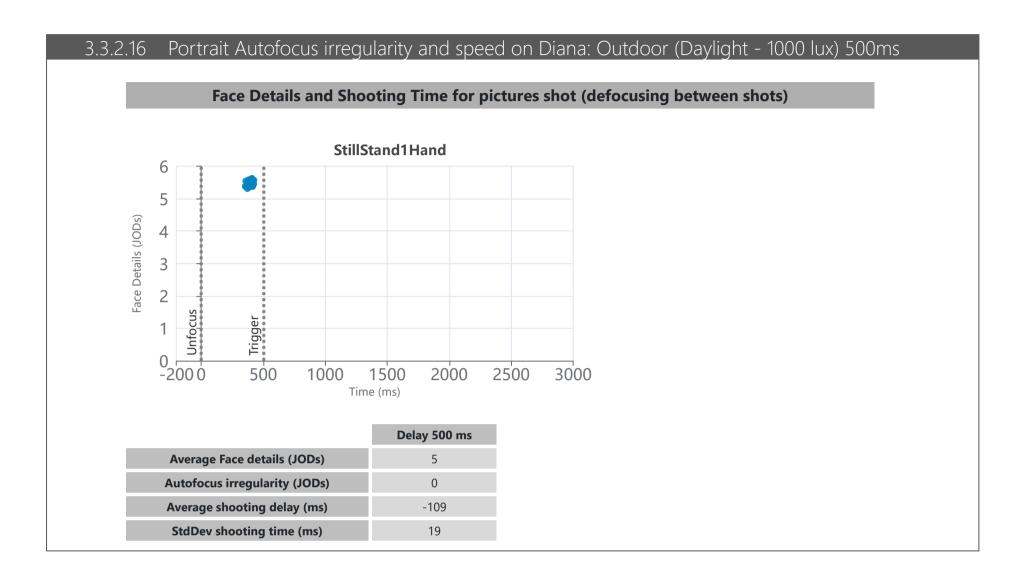
Average edge acutance (%) Autofocus irregularity (%) Average shooting delay (ms) StdDev shooting time (ms) Delay 500 ms AppleiPhone16ProMax 0 DxOMark Camera Report Photo - Autofocus

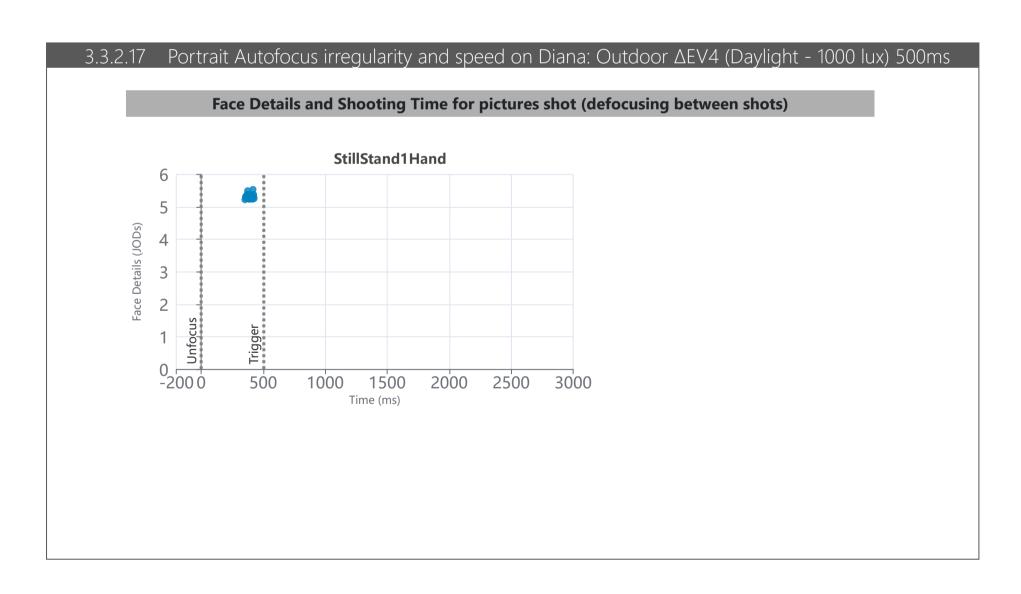


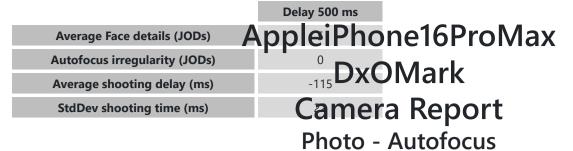


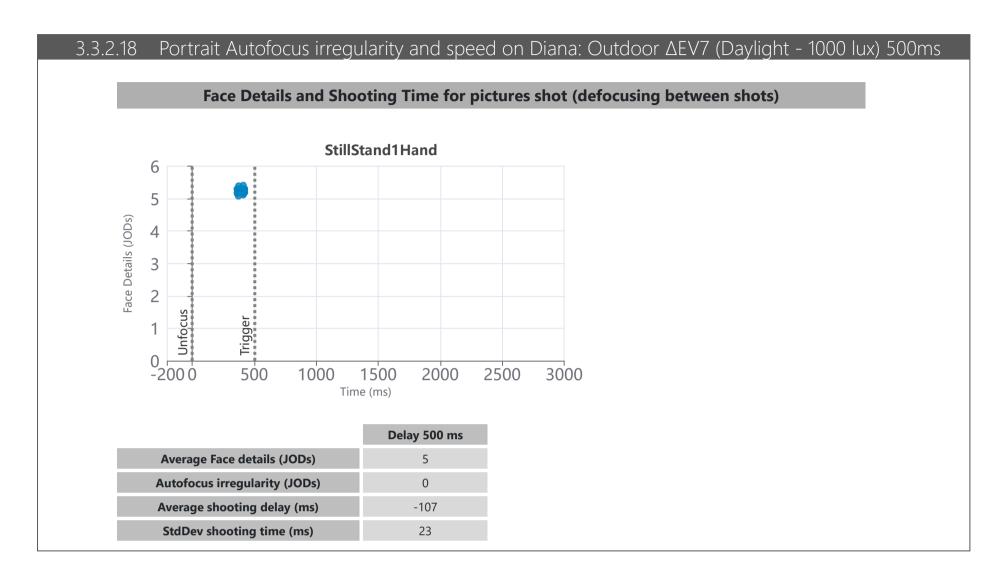


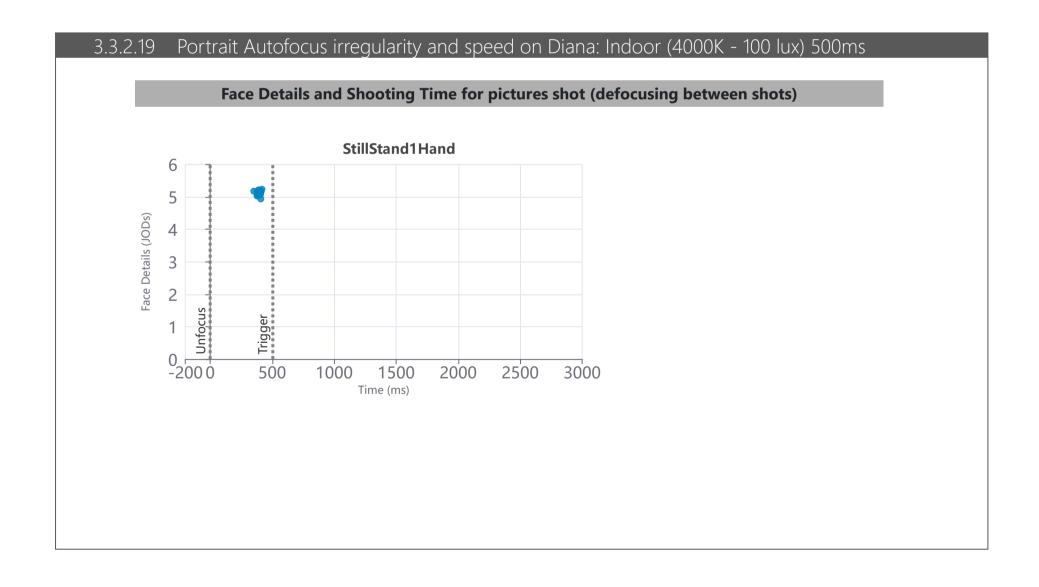


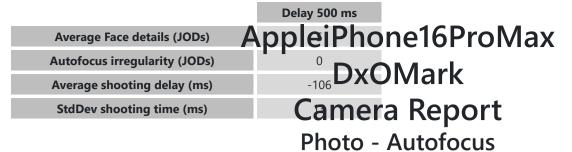


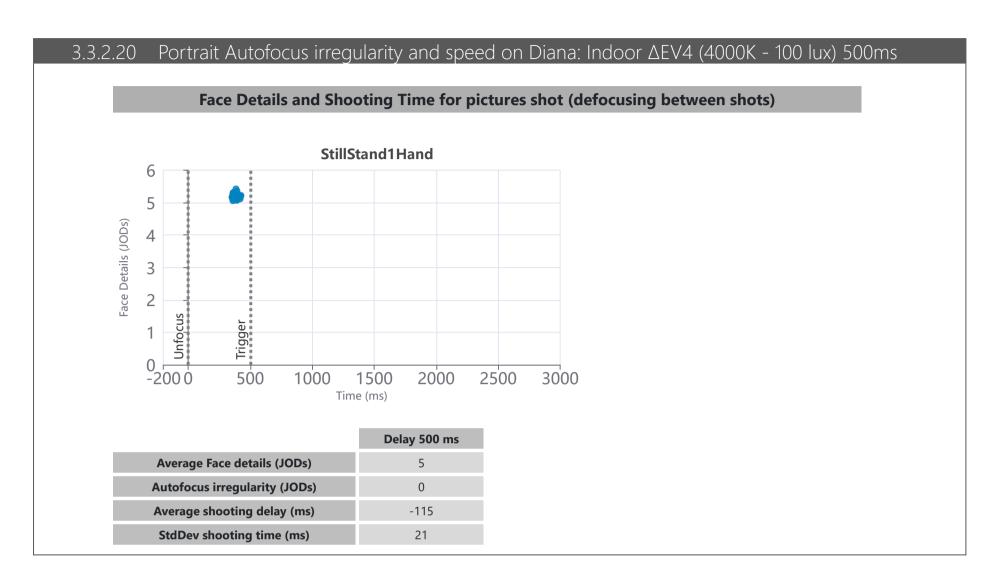


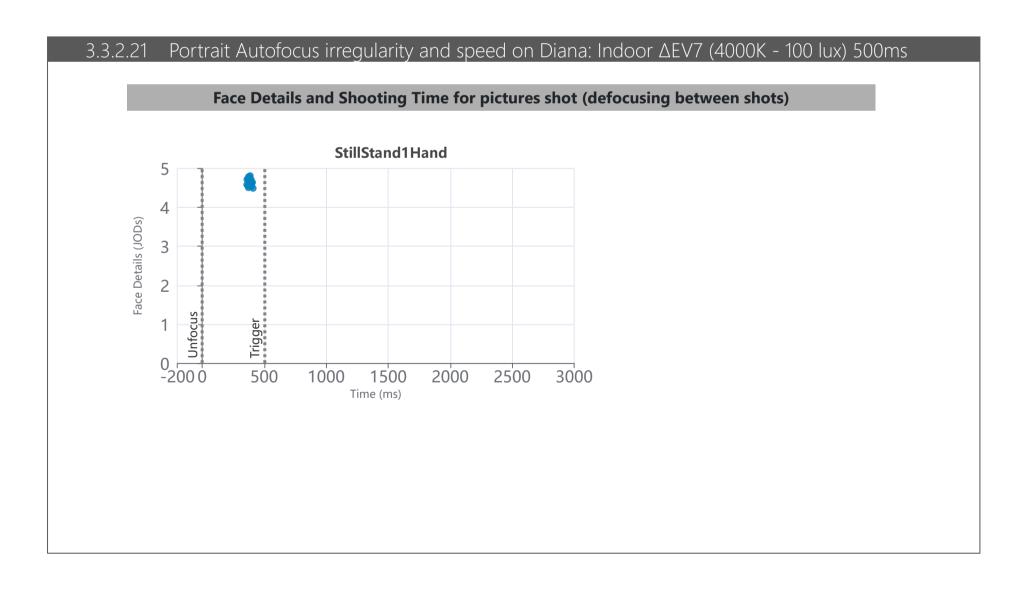




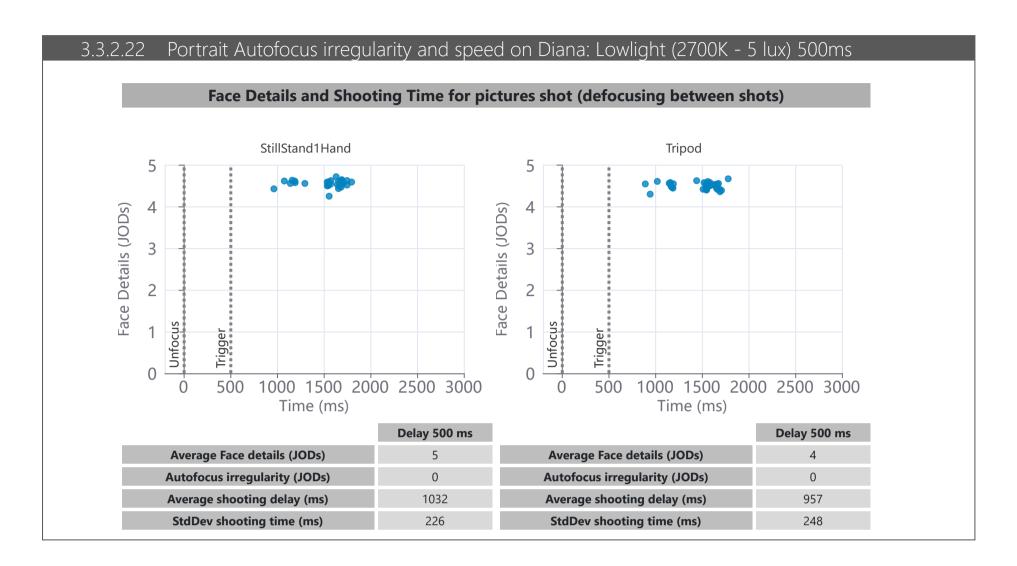


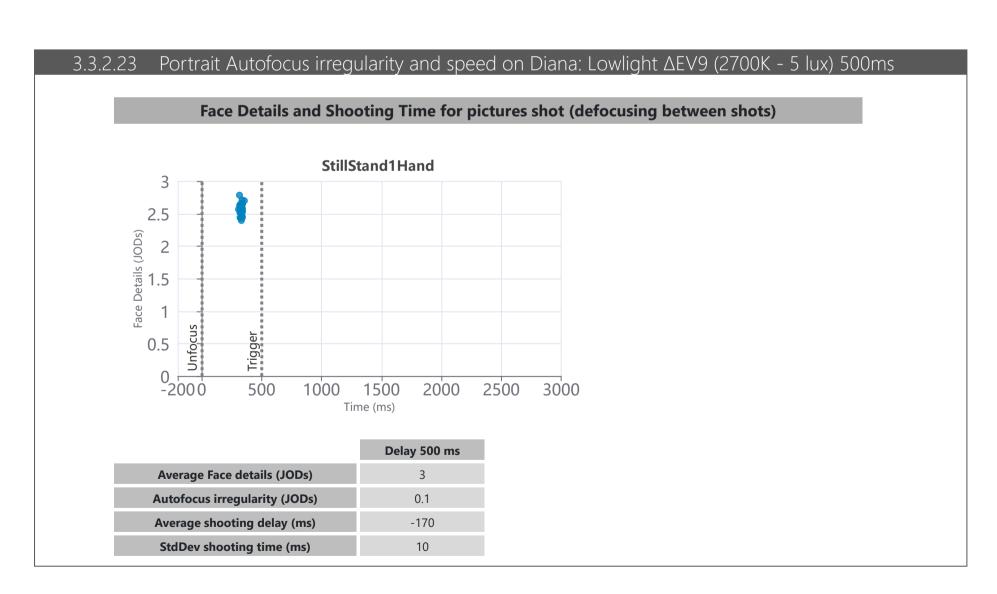


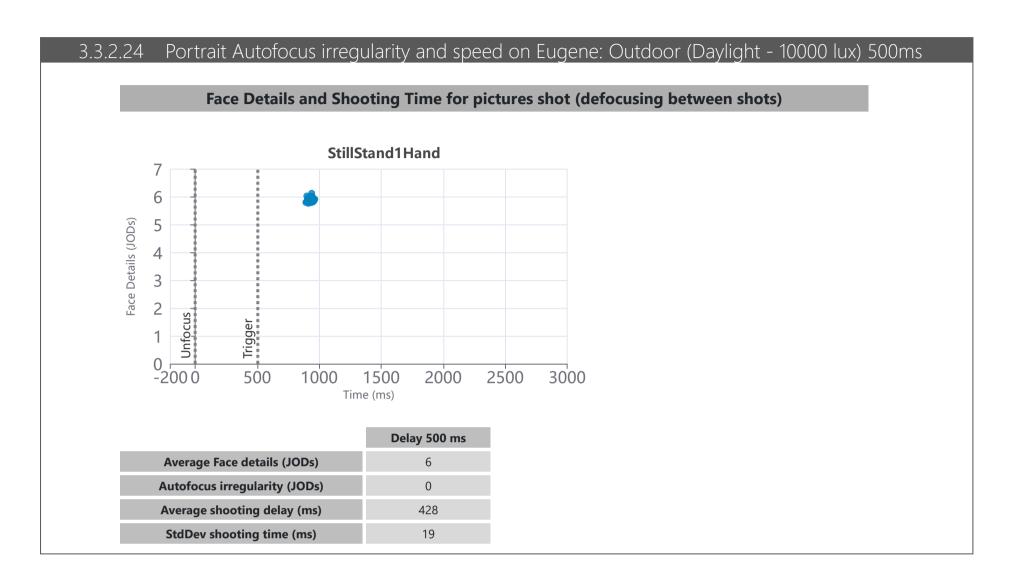


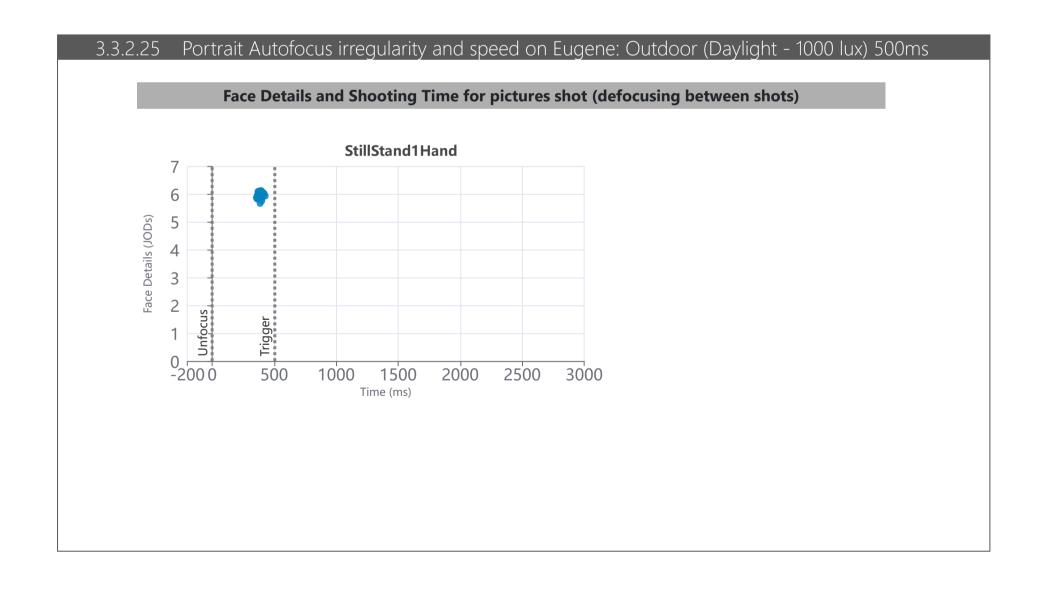


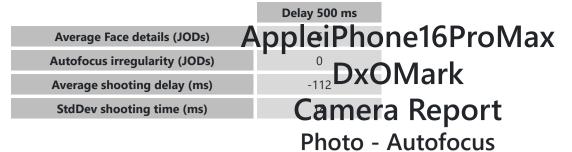
Average Face details (JODs) Autofocus irregularity (JODs) Average shooting delay (ms) StdDev shooting time (ms) Delay 500 ms AppleiPhone16ProMax 0 -116 DxOMark Camera Report Photo - Autofocus

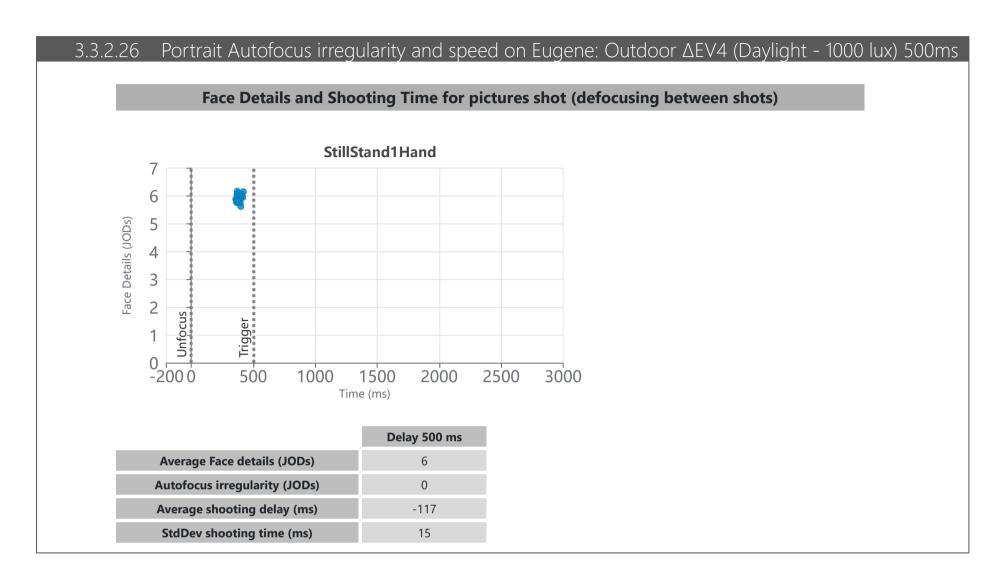


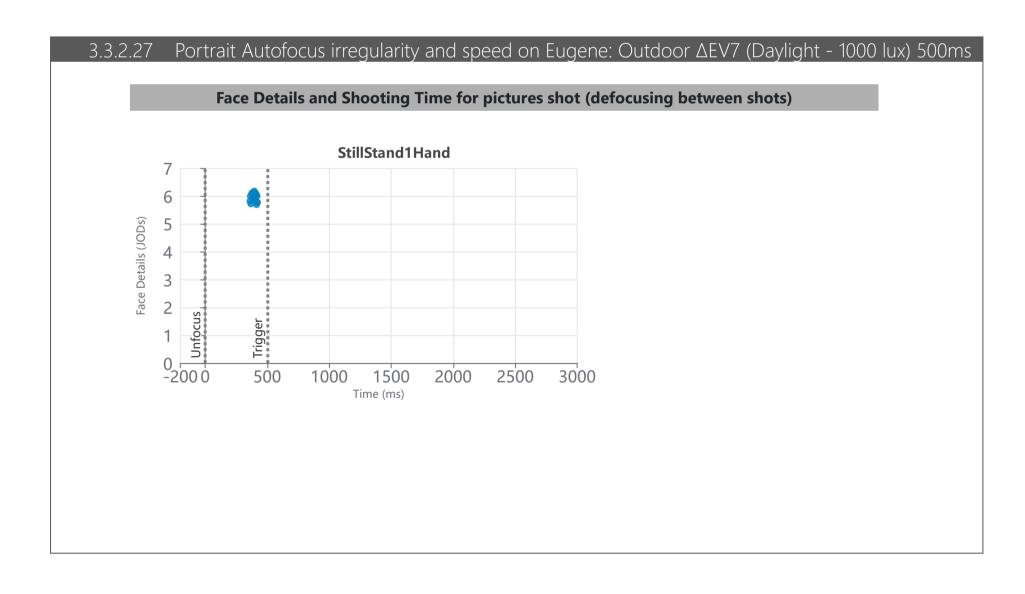


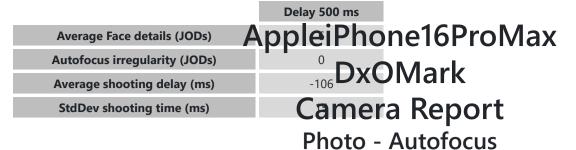


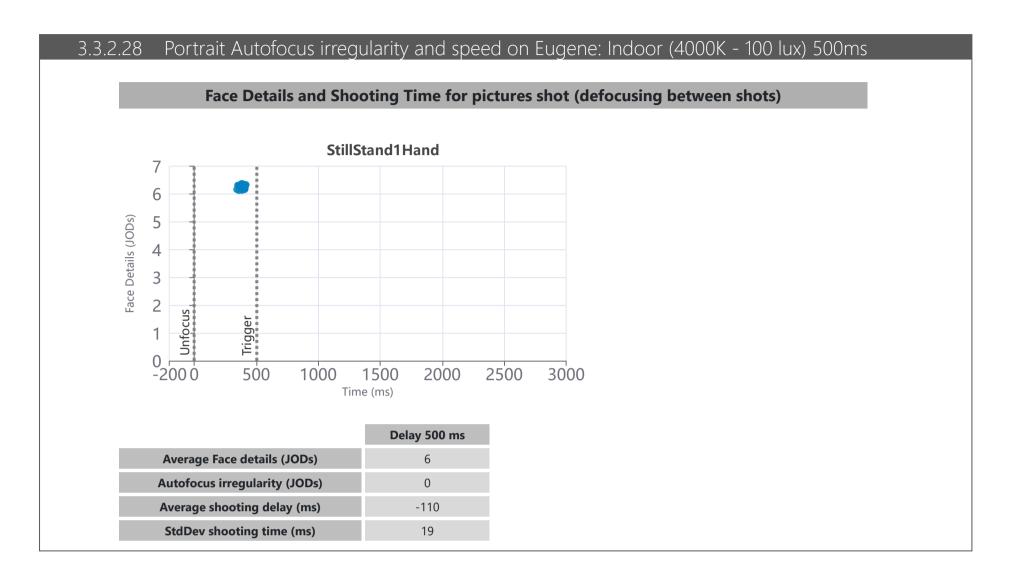


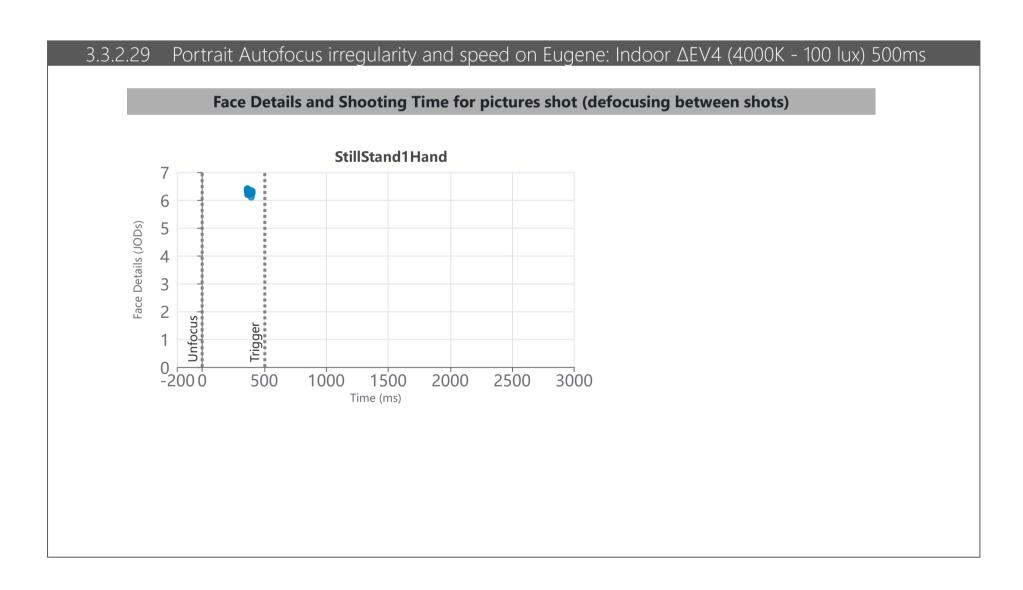




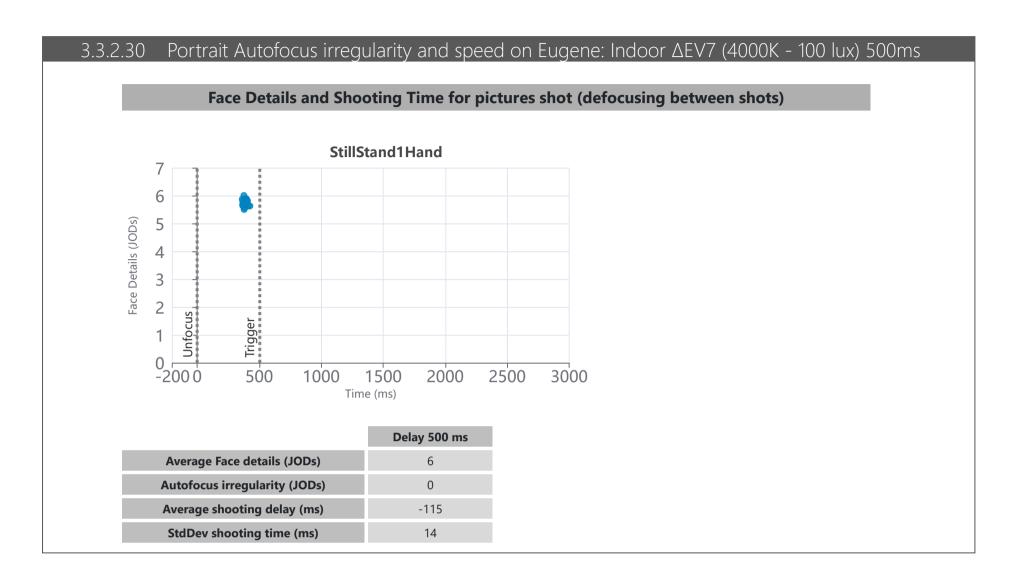


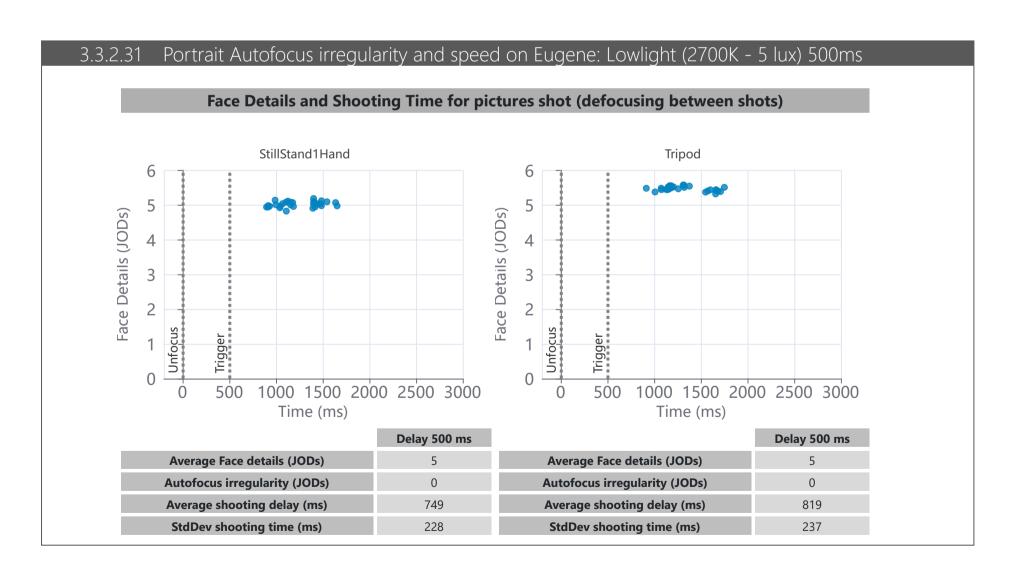


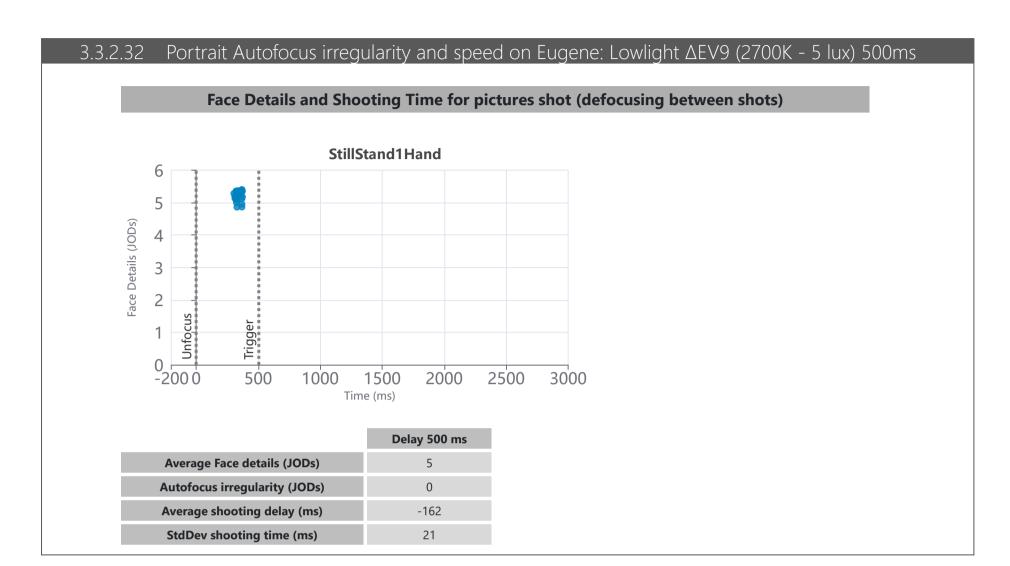




Average Face details (JODs) Autofocus irregularity (JODs) Average shooting delay (ms) StdDev shooting time (ms) Delay 500 ms AppleiPhone16ProMax 0 -117 DxOMark Camera Report Photo - Autofocus





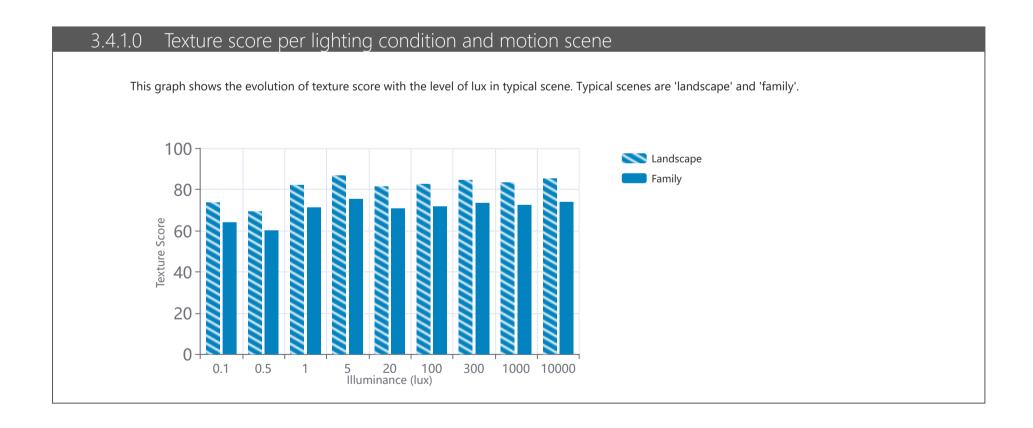


AppleiPhone16ProMax DxOMark Camera Report

Photo - Texture and noise

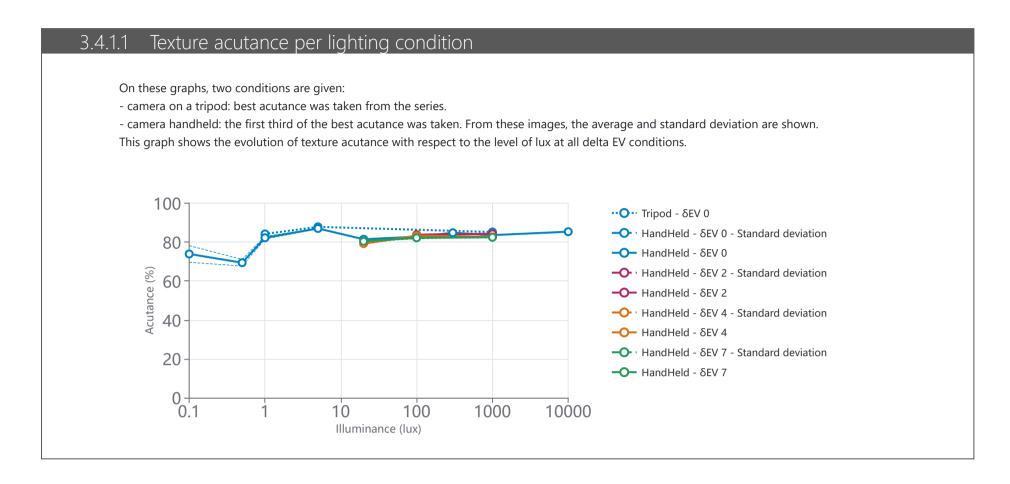
0 Scores									
	Texture			Noise					
	128			118					
Texture scores per scene type			Noise scores per scene t	ype					
Lowlight	Indoor	Outdoor	Lowlight	Indoor	Outdoor				
114	131	136	105	120	126				

.4.1 Texture and noise technical overview										
Objective	landscape and	family scores p	er scene type	Objective scores per set-up and scene type for visual noise						
		Lowlight	Indoor	Outdoor		Lowlight	Indoor	Outdoor		
Land	dscape	126	131	131	AFHDR	56	73	79		
Fa	mily	24	34	45	DXOMARK chart	58	72	77		
Perceptua	Perceptual analysis scores per scene type for texture Perceptual analysis scores per scene type for visual noise									
Lo	wlight	Indoor		Outdoor	Lowlight	Indoor	0	utdoor		
	5	7		7	7	9		9		



AppleiPhone16ProMax DxOMark Camera Report

Photo - Texture and noise



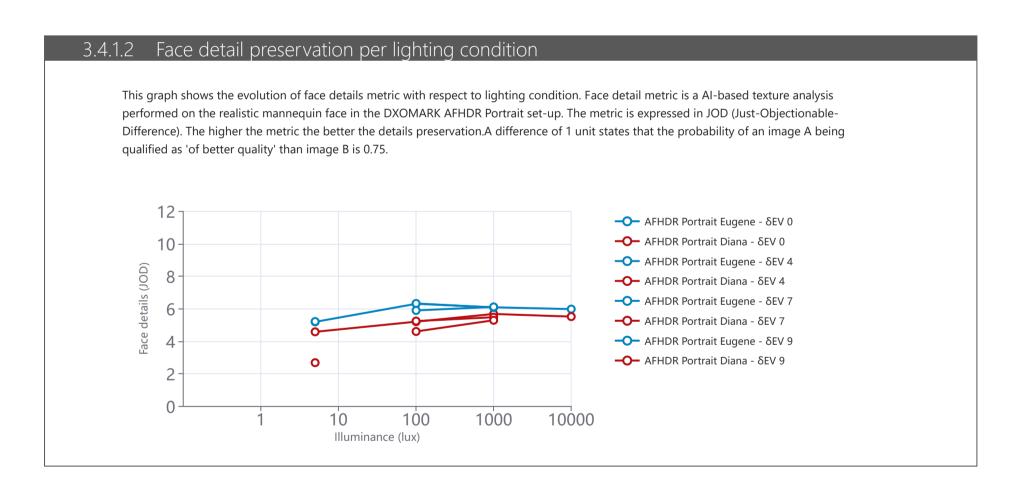


Photo - Texture and noise

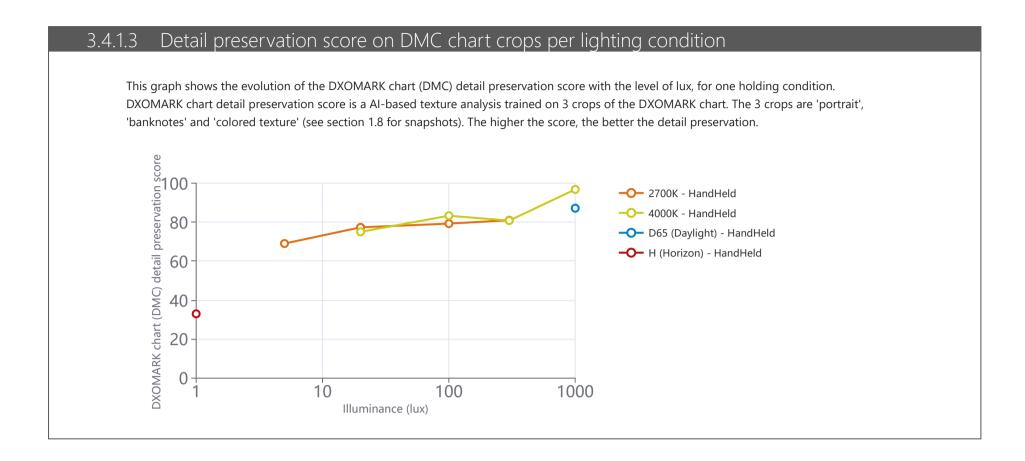
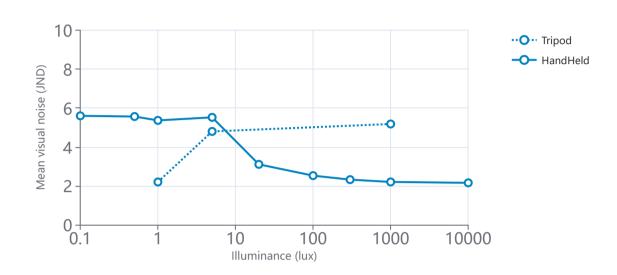


Photo - Texture and noise

3.4.1.4 Visual noise per lighting condition

This graph shows the evolution of the visual noise metric and noise chromaticity ratio with the level of lux for handheld condition. The visual noise metric is the mean of visual noise measurement in JND of noisiness units on all patches of the deadleaves chart in the AFHDR setup. Noise chromaticity ratio is the ratio of the weighted chrominance a*, b* variance with respect to the weighted chrominance and lightness L* variance (in CIELAB color space). The mean of the ratio on all patches is displayed.



This graph shows the evolution of the visual noise metric with the level of lux for stillStand1Hand condition. The visual noise metric is the mean of visual noise measurement in JND of noisiness units on the mannequin's face in the AFHDR Portrait setup.

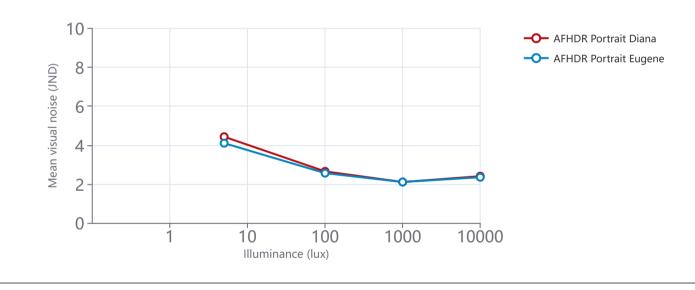
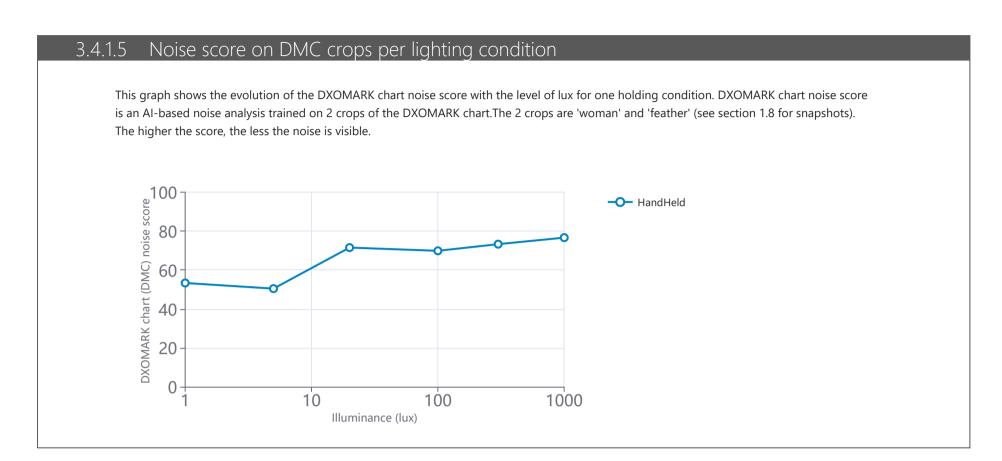


Photo - Texture and noise



3.4.2 Texture and noise measurements

3.4.2.0 Viewing conditions

Acutance and Visual Noise

The viewing condition used for the acutance and visual noise calculation is a print of 120cm of height and a resolution of 600dpi viewed from 1 meter.

Face Details Preservation

During annotation, crops are upsampled to a resolution of 1400x1600 and displayed on a 32" professional monitor with pixel pitch 0.185, 4K resolution at a fixed distance of 660mm.

Detail Preservation on DMC

During annotation, crops are upsampled to a resolution of 1000x1000 and displayed on a 24" professional monitor with pixel pitch 0.270, resolution 1920 x 1200 at a fixed distance of 933mm.

Photo - Texture and noise

3.4.2.1 Daylight - 10 000 lux

These tables show the texture and edges acutance for tripod and hand held conditions.

	AFHDR Texture acutance (%)	AFHDR Edge acutance (%)
ΔΕV	0	0
Tripod		
Handheld	85.3	84.4

These tables show the motion blur BdU200x300 values measured on AFHDR set-up. The exposure time value is also displayed.

	BdU 200x300 (mm)	Measured Exposure Time (ms)
ΔΕV	0	0
Tripod		
Handheld	0.2	1.3

These tables show the face details preservation on the realistic mannequin of AFHDR Portrait at all EV conditions.

	Face details Diana [JOD]	Face details Eugene [JOD]
ΔΕV	0	0
StillStand1Hand	5.5	6

These tables show the visual luminance noise and chroma noise for tripod and hand held conditions.

	AFHDR Visual noise [JND]	AFHDR Noise Chromaticity Ratio (%)
ΔΕV	0	0
Tripod		
Handheld	2.2	0

These tables show the visual luminance noise for stillStand1Hand condition.

	AFHDR Portrait Diana Visual noise [JND]	D] AFHDR Portrait Eugene Visual noise [JND		
ΔΕV	0	0		
StillStand1Hand	2.4	2.4		

Photo - Texture and noise

3.4.2.2 Daylight - 1000 lux

These tables show the texture and edges acutance for tripod and hand held conditions at all EV conditions.

	AFHD	AFHDR Texture acutance (%) AFHDR Edge acutan					acutanc	e (%)
ΔΕV	0	2	4	7	0	2	4	7
Tripod	85.1				83.7			
Handheld	83.5	84.2	82.6	82.4	82.6	83.3	84.2	83

These tables show the motion blur BdU200x300 values measured at all EV conditions on AFHDR set-up. The exposure time value is also displayed.

	BdU 200x300 (mm)				Measured Exposure Time (ms)			
ΔΕV	0	2	4	7	0	2	4	7
Tripod					9.1			
Handheld	0.2	0.2	0.2	0.2	4.2	5.6	3.2	2.8

These tables show the face details preservation on the realistic mannequin of AFHDR Portrait at all EV conditions.

	Face de	tails Dian	a [JOD]	Face details Eugene [JOD]		
ΔΕV	0	4	7	0	4	7
StillStand1Hand	5.7	5.5	5.3	6.1	6.1	6.1

These tables show DMC detail preservation metric and DMC noise metric for tripod and hand held conditions.

	DMC Detail preservation metric	Repeatability	DMC Noise metric
Handheld	87	57	79

These tables show the visual luminance noise and chroma noise for tripod and hand held conditions at all EV conditions.

	AFHDR Visual noise [JND]			R Visual noise [JND] AFHDR Noise Chromaticity Ratio			latio (%)	
ΔΕV	0	2	4	7	0	2	4	7
Tripod	2.2				0.1			
Handheld	2.2	3.1	3	3.6	0.1	0	0	0

These tables show the visual luminance noise for stillStand1Hand condition at all EV conditions.

	AFHDR Portr	ait Diana Visua	l noise [JND]	AFHDR Portra	ait Eugene Visua	al noise [JND]
ΔΕV	0	4	7	0	4	7
StillStand1Hand	2.1	2.7	2.6	2.1	3.1	2.8

Photo - Texture and noise

3.4.2.3 4000K - 300 lux

These tables show the texture and edges acutance for tripod and hand held conditions.

	AFHDR Texture acutance (%)	AFHDR Edge acutance (%)
ΔΕV	0	0
Tripod		
Handheld	84.7	84.3

These tables show the motion blur BdU200x300 values measured on AFHDR set-up. The exposure time value is also displayed.

	BdU 200x300 (mm)	Measured Exposure Time (ms)
ΔΕV	0	0
Tripod		
Handheld	0.2	8.1

These tables show DMC detail preservation metric and DMC noise metric for tripod and hand held conditions.

	DMC Detail preservation metric	Repeatability	DMC Noise metric
Handheld	81	61	75

These tables show the visual luminance noise and chroma noise for tripod and hand held conditions.

	AFHDR Visual noise [JND]	AFHDR Noise Chromaticity Ratio (%)
ΔΕV	0	0
Tripod		
Handheld	2.3	0.1

Photo - Texture and noise

3.4.2.4 4000K - 100 lux

These tables show the texture and edges acutance for tripod and hand held conditions at all EV conditions.

	AFHD	R Textur	e acutan	ce (%)	AFHDR Edge acutance (%)			
ΔΕV	0	2	4	7	0	2	4	7
Tripod								
Handheld	82.7	83.8	83.2	82.2	83.8	85.4	84.8	85.8

These tables show the motion blur BdU200x300 values measured at all EV conditions on AFHDR set-up. The exposure time value is also displayed.

	Вс	IU 200x	300 (mı	n)	Measu	red Expo	sure Tim	e (ms)
ΔΕV	0	2	4	7	0	2	4	7
Tripod								
Handheld	0.2	0.2	0.2	0.2	8.8	17.1	12.2	9

These tables show the face details preservation on the realistic mannequin of AFHDR Portrait at all EV conditions.

	Face de	tails Dian	a [JOD]	Face det	ails Euger	ne [JOD]
ΔΕV	0	4	7	0	4	7
StillStand1Hand	5.2	5.2	4.6	6.3	6.3	5.9

These tables show DMC detail preservation metric and DMC noise metric for tripod and hand held conditions.

	DMC Detail preservation metric	Repeatability	DMC Noise metric
Handheld	83	81	71

These tables show the visual luminance noise and chroma noise for tripod and hand held conditions at all EV conditions.

	AFHD	AFHDR Visual noise [JND]				AFHDR Noise Chromaticity Ratio (%)			
ΔΕV	0	2	4	7	0	2	4	7	
Tripod									
Handheld	2.5	3.4	3.9	4.4	0	0	0	0	

These tables show the visual luminance noise for stillStand1Hand condition at all EV conditions.

	AFHDR Portr	ait Diana Visua	I noise [JND]	AFHDR Portra	iit Eugene Visua	I noise [JND]
ΔΕV	0	4	7	0	4	7
StillStand1Hand	2.6	3.4	3.4	2.6	3.7	3.5

Photo - Texture and noise

3.4.2.5 2700K - 20 lux

These tables show the texture and edges acutance for tripod and hand held conditions.

	AFHDR T	exture acut	ance (%)	AFHDR I	Edge acuta	nce (%)
ΔΕV	0	4	7	0	4	7
Tripod						
Handheld	81.4	79.2	80.4	81.3	80.9	82

These tables show the motion blur BdU200x300 values measured on AFHDR set-up. The exposure time value is also displayed.

	BdU 200x300 (mm)			Measured Exposure Time (ms)			
ΔΕV	0	4	7	0	4	7	
Tripod							
Handheld	0.2	0.2	0.2	32.1	17.1	17	

These tables show DMC detail preservation metric and DMC noise metric for tripod and hand held conditions.

	DMC Detail preservation metric	Repeatability	DMC Noise metric	
Handheld	77	85	70	

These tables show the visual luminance noise and chroma noise for tripod and hand held conditions.

	AFHDR Visual noise [JND]		AFHDR Noise Chromaticity Ratio (ty Ratio (%)	
ΔΕV	0	4	7	0	4	7
Tripod						
Handheld	3.1	4.5	4.8	0.1	0.1	0.1

Photo - Texture and noise

3.4.2.6 2700K - 5 lux

These tables show the texture and edges acutance for tripod and hand held conditions at all EV conditions.

	AFHDR Texture acutance (%)	AFHDR Edge acutance (%)
ΔΕV	0	0
Tripod	87.8	86.5
Handheld	86.9	84.9

These tables show the motion blur BdU200x300 values measured at all EV conditions on AFHDR set-up. The exposure time value is also displayed.

	BdU 200x300 (mm)	Measured Exposure Time (ms)
ΔΕV	0	0
Tripod		88.9
Handheld	0.2	60.9

These tables show the face details preservation on the realistic mannequin of AFHDR Portrait at all EV conditions.

	Face details	Diana [JOD]	Face details I	ugene [JOD]
ΔΕV	0	9	0	9
StillStand1Hand	4.6	2.7	5.2	5.2

These tables show DMC detail preservation metric and DMC noise metric for tripod and hand held conditions.

	DMC Detail preservation metric	Repeatability	DMC Noise metric
Handheld	69	63	50

These tables show the visual luminance noise and chroma noise for tripod and hand held conditions at all EV conditions.

	AFHDR Visual noise [JND]	AFHDR Noise Chromaticity Ratio (%)
ΔΕV	0	0
Tripod	4.8	0
Handheld	5.5	0

These tables show the visual luminance noise for stillStand1Hand condition at all EV conditions.

	AFHDR Portrait Diar	na Visual noise [JND]	AFHDR Portrait Euge	ne Visual noise [JND]
ΔΕV	0	9	0	9
StillStand1Hand	4.4	4.7	4.1	6.5

Photo - Texture and noise

3.4.2.7 Horizon - 1 lux

These tables show the texture and edges acutance for tripod and hand held conditions.

	AFHDR Texture acutance (%)	AFHDR Edge acutance (%)
ΔΕV	0	0
Tripod	84.1	82.2
Handheld	82.2	73.9

These tables show the motion blur BdU200x300 values measured on AFHDR set-up. The exposure time value is also displayed.

	BdU 200x300 (mm)	Measured Exposure Time (ms)
ΔΕV	0	0
Tripod		280.6
Handheld	0.2	228.8

These tables show DMC detail preservation metric and DMC noise metric for tripod and hand held conditions.

	DMC Detail preservation metric	Repeatability	DMC Noise metric
Handheld	33	0	52

These tables show the visual luminance noise and chroma noise for tripod and hand held conditions.

	AFHDR Visual noise [JND]	AFHDR Noise Chromaticity Ratio (%)
ΔΕV	0	0
Tripod	5.2	0.1
Handheld	5.4	0.1

3.4.2.8 4000K - 0.5 lux

These tables show the texture and edges acutance for tripod and hand held conditions.

	AFHDR Texture acutance (%)	AFHDR Edge acutance (%)
ΔΕV	0	0
Tripod		
Handheld	69.4	54

These tables show the motion blur BdU200x300 values measured on AFHDR set-up. The exposure time value is also displayed.

	BdU 200x300 (mm)	Measured Exposure Time (ms)						
ΔΕV	0	0						
Tripod								
Handheld	0.2	380						

These tables show the visual luminance noise and chroma noise for tripod and hand held conditions.

	AFHDR Visual noise [JND]	AFHDR Noise Chromaticity Ratio (%)
ΔΕV	0	0
Tripod		
Handheld	5.6	0.1

Photo - Texture and noise

3.4.2.9 2700K - 0.1 lux

These tables show the texture and edges acutance for tripod and hand held conditions.

	AFHDR Texture acutance (%)	AFHDR Edge acutance (%)
ΔΕV	0	0
Tripod		
Handheld	73.9	61

These tables show the motion blur BdU200x300 values measured on AFHDR set-up. The exposure time value is also displayed.

	BdU 200x300 (mm)	Measured Exposure Time (ms)					
ΔΕV	0	0					
Tripod							
Handheld	0.2	274.8					

These tables show the visual luminance noise and chroma noise for tripod and hand held conditions.

	AFHDR Visual noise [JND]	AFHDR Noise Chromaticity Ratio (%)						
ΔΕV	0	0						
Tripod								
Handheld	5.6	0.3						

AppleiPhone16ProMax DxOMark Camera Report Photo - Artifacts

3.5.0 Scores

Artifacts

74

Color quantization

Face rendering artifacts
Flare



Lens shading
Loss of acutance

Ringing

AppleiPhone16ProMax DxOMark Camera Report Photo - Artifacts

3.5.2 Artifacts measurements

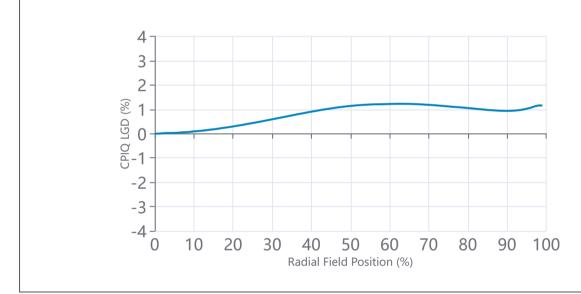
3.5.2.0 Acutance in the field

This table contains the acutance of the green channel, expressed in %.

		Horizontal			Vertical						
	Green	channel (Acut	tance)		Green channel (Acutance)						
56	67	80	72	51	78	54	52	63	61		
65	75	82	77	66	76	80	81	81	66		
52	66	76	73	51	52	64	62	63	45		

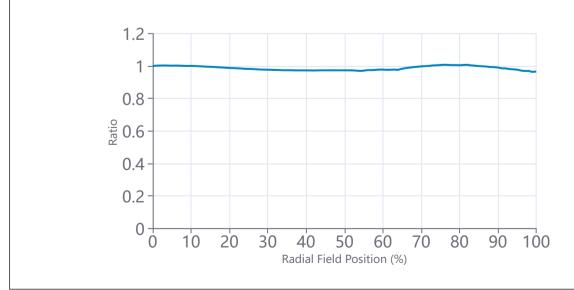
3.5.2.1 Lens geometric distortion

This curve displays the geometric distortion in the field, as the difference between the radial distance of the actual grid position and radial distance to the ideal grid position, divided by the ideal grid position.



3.5.2.2 Luminance lens shading

This curve displays the radial relative luminance profile.



AppleiPhone16ProMax DxOMark Camera Report Photo - Artifacts

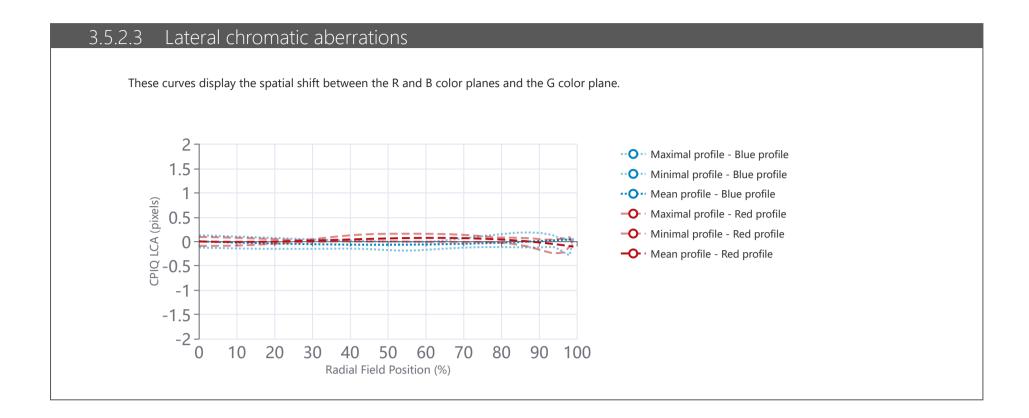


Photo - Zoom

O Scores								
363163								
		S	core					
Zoom		134						
Wide		13						
Tele			133					
Equivalent focal length	15 mm	17 mm	51 mm	75 mm	97 mm	127 mm	193 mm	347 mm
Zoom ratio	0.5x	0.6x	2.0x	3.0x	3.7x	5.0x	7.2x	12.7x
Score	107	101	115	101	107	106	103	59
	W	/ide	Tele					
Outdoor	1	57	141					
Indoor	1	30	127					
Lowlight	1	18	128					

3.6.1 Zoom range technical overview

Perceptual and objective scores per zoom range and full-frame equivalent focal length value respectively.

	W	ide	Tele								
	Ultra Wide	Super Wide	Close	Medium			Long	Extra Long			
Equivalent focal length	15 mm	17 mm	51 mm	75 mm	97 mm	127 mm	193 mm	347 mm			
Zoom ratio	0.5x	0.6x	2.0x	3.0x	3.7x	5.0x	7.2x	12.7x			
Perceptual score	83	80	86		80		98				
Objective score	60	51	69	51	62	59	36	28			

3.6.2 Objective measurements

3.6.2.0 Objective scores

Objective score per lighting condition for each measured full-frame equivalent focal length.

Equivalent focal length	15 mm	17 mm	51 mm	75 mm	97 mm	127 mm	193 mm	347 mm
Zoom ratio	0.5x	0.6x	2.0x	3.0x	3.7x	5.0x	7.2x	12.7x
UI Button	True	False	True	False	False	True	False	False
Lowlight	44	35	66	46	53	53	26	14
Indoor	61	51	66	49	61	55	32	30
Outdoor	71	63	75	56	70	67	47	38

Photo - Zoom

3.6.2.1 Exposure

The target exposure value corresponds to the intensity (ITP JND-scaled) measured on the DXOMARK chart (DMC) portrait crop. The measurement is performed on the DMC portrait crop at different distances while zooming and keeping the same framing. The corresponding full-frame equivalent focal length is measured for each distance.

This table shows the maximum and average intensity values in JND for each measured focal length in all lighting conditions as well as the measurement standard deviation value.

	Equivalent focal length	15 mm	17 mm	51 mm	75 mm	97 mm	127 mm	193 mm	347 mm
	Zoom ratio	0.5x	0.6x	2.0x	3.0x	3.7x	5.0x	7.2x	12.7x
	UI Button	True	False	True	False	False	True	False	False
1000 lux	Average	344	348	322	338	327	327	336	324
(Outdoor)	Repeatability	0	1	10	6	6	12	1	3
100 lux (Indoor)	Average	317	313	325	342	336	329	322	309
100 lux (Indoor)	Repeatability	1	1	12	7	8	10	6	2
20 lov (Lovelight)	Average	310	312	296	296	298	289	289	279
20 lux (Lowlight)	Repeatability	3	1	3	6	7	4	1	2
E love (Lovelight)	Average	266	252	302	301	275	291	261	213
5 lux (Lowlight)	Repeatability	5	2	6	2	4	4	21	1

This graph shows the evolution of the intensity (ITP JND-scaled) measurement with respect to the level of lux for multiple lighting conditions. The x-axis represents the equivalent focal length measured for each corresponding shooting distance and the y-axis represents the average intensity value in JND. Intensity target values are indicated for each lighting condition: for data points within this range the score is maximal.

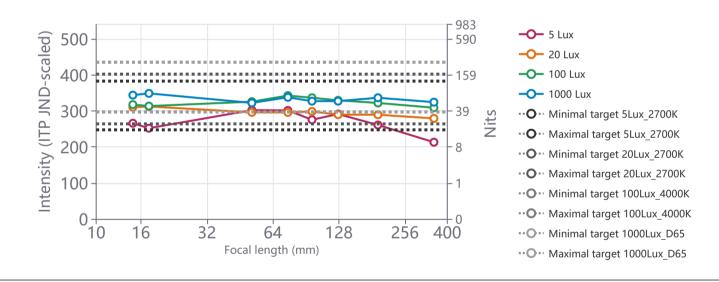


Photo - Zoom

3.6.2.2 Details Preservation

DXOMARK chart (DMC) detail preservation score is derived from an Al-based metric trained to evaluate texture and details rendering on a selection of crops of our DMC. The measurement is performed on the DMC portrait crop at different distances when zooming: the corresponding full-frame equivalent focal length is measured for each distance.

This table shows the best and average DMC details preservation score for each measured focal length in all light conditions as well as the corresponding repeatability score.

	Equivalent focal length	15 mm	17 mm	51 mm	75 mm	97 mm	127 mm	193 mm	347 mm
	Zoom ratio	0.5x	0.6x	2.0x	3.0x	3.7x	5.0x	7.2x	12.7x
	UI Button	True	False	True	False	False	True	False	False
40001	Best	68	55	63	35	48	54	30	18
1000 lux (Outdoor)	Average	68	54	63	34	47	54	29	17
	Repeatability	95	92	95	95	81	80	86	92
	Best	56	37	57	30	42	47	18	14
100 lux (Indoor)	Average	55	36	57	29	40	45	16	14
	Repeatability	82	82	34	63	34	51	78	82
	Best	44	25	50	25	43	33	8	7
20 lux (Lowlight)	Average	41	24	49	24	41	30	7	7
	Repeatability	53	68	80	84	75	67	88	90
	Best	30	20	43	20	27	38	12	2
5 lux (Lowlight)	Average	13	16	42	20	23	37	11	1
	Repeatability	0	0	91	86	38	71	75	0

This graph shows the evolution of the DMC details preservation Score with respect to the full-frame equivalent focal length for different lighting conditions. The x-axis represents the equivalent focal length measured for each corresponding shooting distance and the y-axis represents the maximum details preservation metric score: higher value means better quality.

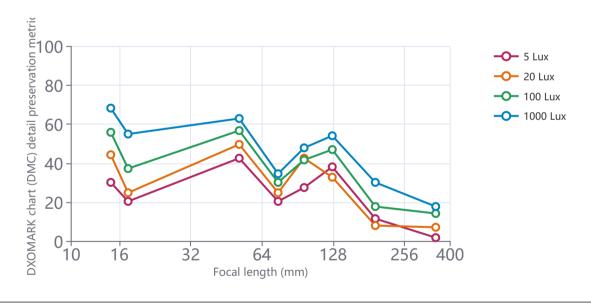


Photo - Zoom

3.6.2.3 Resolution

The resolution measurement corresponds to the resolved line pairs per millimeters measured on the banknote crop of the DXOMARK chart (DMC). The value expands from 9 lp/mm (lowest quality) to 20 lp/mm (best quality). The measurement is performed on the DMC banknote crop at different distances when zooming: the corresponding full-frame equivalent focal length is measured for each distance. This table shows the maximum and average frequency of distinguishable line pairs measured in the horizontal, vertical, and diagonal directions in line per millimeters unit as well as the measurement standard deviation value.

	Equivalent focal length	15 mm	17 mm	51 mm	75 mm	97 mm	127 mm	193 mm	347 mm
	Zoom ratio	0.5x	0.6x	2.0x	3.0x	3.7x	5.0x	7.2x	12.7x
	UI Button	True	False	True	False	False	True	False	False
	Maximum	17.5	14.5	17	11.8	18.8	16.2	10.7	9
1000 lux (Outdoor)	Average	16.9	14.1	16.7	11.7	17.2	16	10.6	9
(Outdoor)	Repeatability	0.2	0.2	0.2	0.2	1	0.2	0.2	0
	Maximum	15.2	12.5	16.7	11.3	17.5	15.8	9.8	9
100 lux (Indoor)	Average	14.9	12.3	16.1	11.2	15.9	15.4	9.2	9
	Repeatability	0.2	0.3	2.1	0.5	2.2	1.4	0.3	0
	Maximum	13	10.7	16.2	11.2	17.7	13	9	9.3
20 lux (Lowlight)	Average	12.6	10.4	16	11	16	12.5	9	9.1
	Repeatability	0.6	0.6	0.4	0.4	0.9	1.2	0	0.1
	Maximum	12.5	10.2	14.7	10.8	13.8	12.5	9	9
5 lux (Lowlight)	Average	11.8	9.4	14.2	10.6	11.2	12.1	9	9
	Repeatability	5.1	4.6	0.4	0.4	1.5	0.9	0	4.5

This graph shows the evolution of the resolution measurement with respect to the full-frame equivalent focal length for different lighting conditions. The x-axis represents the equivalent focal length measured for each corresponding shooting distance and the y-axis represents the maximum resolution measurement value.

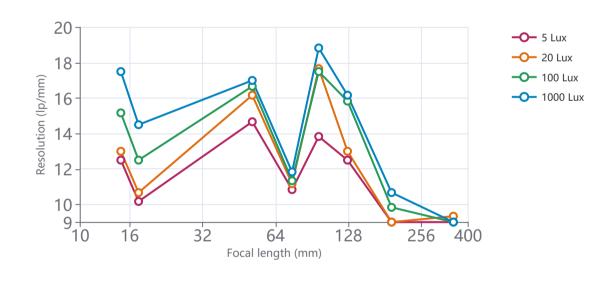


Photo - Zoom

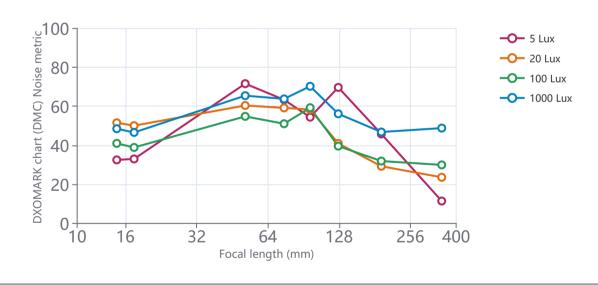
3.6.2.4 Noise

DMC noise score is derived from an Al-based metric trained to evaluate noise level on a selection of crops of our DXOMARK chart (DMC). The measurement is performed on the DMC portrait crop at different distances when zooming: the corresponding full-frame equivalent focal length is measured for each distance.

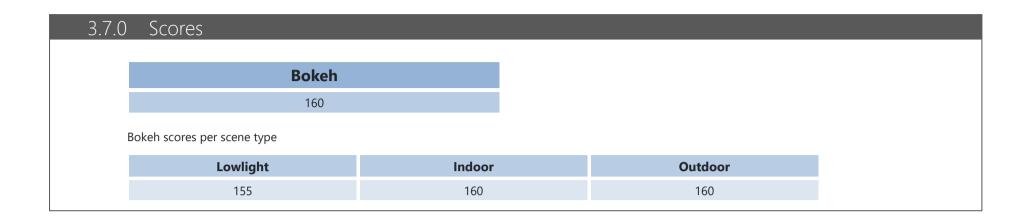
This table shows the best and average DMC noise score for each measured focal length in all light conditions as well as the corresponding repeatability score.

	Equivalent focal length	15 mm	17 mm	51 mm	75 mm	97 mm	127 mm	193 mm	347 mm
	Zoom ratio	0.5x	0.6x	2.0x	3.0x	3.7x	5.0x	7.2x	12.7x
	UI Button	True	False	True	False	False	True	False	False
1000 lux (Outdoor)	Best	48	46	66	63	71	56	47	50
	Average	48	47	65	64	70	56	47	49
	Repeatability	99	99	98	98	98	98	98	99
	Best	41	39	54	53	62	39	33	31
100 lux (Indoor)	Average	41	39	55	51	59	40	32	30
	Repeatability	99	99	98	96	95	98	98	97
	Best	54	53	58	60	60	42	31	24
20 lux (Lowlight)	Average	51	50	60	59	58	41	29	24
	Repeatability	98	97	97	98	98	98	99	98
	Best	32	35	71	65	46	72	56	11
5 lux (Lowlight)	Average	32	33	72	63	54	70	46	11
	Repeatability	99	97	98	99	94	98	85	98

This graph shows the evolution of the DMC noise metric with respect to the full-frame equivalent focal length for different lighting conditions. The x-axis represents the equivalent focal length measured for each corresponding shooting distance and the y-axis represents the maximum noise metric score: higher value means better quality.



AppleiPhone16ProMax DxOMark Camera Report Photo - Bokeh



3.7.1 Bc	keh technical d	overview							
	Perceptual scores (scores range from 0 to 100)								
	Depth artifact	Blur gradient	Shape of bokeh	Depth of field	Texture	Repeatability			
Boke	eh 75	85	80	85	40	90			

Video - Exposure

4.1.0	Scores		
		Exposure	
		121	
	Lowlight	Indoor	Outdoor
	107	126	130

4.1.1	Objective :	Scores		
			HDR	
		Lowlight	Indoor	Outdoor
	Static	95	100	100
	Dynamic	3	30	36
	Temporal	79	70	88

4.1.2 Objective Measurements - Static Attributes

Target exposure measured on Colorchecker® chart (patch 18%) in Intensity (ITP JND-scaled color space)

	Lowlight		Indoor			Outdoor			
	Average	Min	Max	Average	Min	Max	Average	Min	Max
Target exposure (I)	335	201	378	389	380	394	385	385	387

Target exposure measured on face on AFHDR Portrait Setup in Intensity (ITP JND-scaled color space) for different light conditions.

		Outdoor								
Illuminant/Lux	100	00Lux_l	D 55	1000Lux_D65						
ΔEV (stops)	0			0		4		7		
Motion	TP	SS	W	TP	SS	TP	SS	TP	SS	
Diana Face Exposure (I)	368	364	360	369	368	324	300	322	319	
Eugene Face Exposure (I)	455	456	456	459	460	362	358	380	380	

	Indoor							
Illuminant/Lux	100Lux_LED4000K							
ΔEV (stops)	0				4	7		
Motion	TP	SS	W	TP	SS	W	TP	SS
Diana Face Exposure (I)	355	352	349	329	326	323	312	310
Eugene Face Exposure (I)	441	442	443	358	356	359	372	372

	Lowlight								
Illuminant/Lux	5Lux_LED2700K								
ΔEV (stops)		0		9					
Motion	TP	SS	W	TP	SS	W			
Diana Face Exposure (I)	284	273	271	309	305	301			
Eugene Face Exposure (I)	307	295	309	306	310	311			

Motion abbreviations:

- TP: Tripod (Images shot with the device on a tripod.)
- SS: StillStand (Images shot with the device on a moving hexapod simulating a device hold with two hands.)
- W: Walk (Images shot with the device on a moving hexapod simulating a device hold while walking.)

AppleiPhone16ProMax DxOMark Camera Report Video - Exposure

4.1.3 Objective Measurements - Dynamic Attributes

These tables display the value of DXOMARK local contrast gain measured on the backlit panels of the AFHDR Portrait setup. The lower the value, the higher is the amount of local tone compression in the highlights. Local Contrast Gain can be interpreted as the average exponent value of the OOTF: displayluminance \sim scene^(LCG/100). A value of 50% corresponds to a gamma curve of 2. Local Contrast Gain is only measured on conditions with the backlit panels on (Δ EV > 0).

	Outdoor							
Illuminant/Lux	1000Lux_D65							
ΔEV (stops)	4	1	7					
Motion	TP	SS	TP	SS				
Diana LCG Result	10	28	2	2				
Eugene LCG Result	29	37	4	4				

	Indoor							
Illuminant/Lux	100Lux_LED4000K							
ΔEV (stops)		4	7					
Motion	TP	SS	W	TP	SS			
Diana LCG Result	7	7	8	-	-			
Eugene LCG Result	30	33	32	-	3			

		Lowlight					
Illuminant/Lux	51	5Lux_LED2700K					
ΔEV (stops)		9					
Motion	TP	TP SS W					
Diana LCG Result	-	-	-				
Eugene LCG Result	3	3	3				

Motion abbreviations:

- TP: Tripod (Images shot with the device on a tripod.)
- SS: StillStand (Images shot with the device on a moving hexapod simulating a device hold with two hands.)
- W: Walk (Images shot with the device on a moving hexapod simulating a device hold while walking.)

Video - Exposure

4.1.4 Objective Measurements - Temporal Attributes

Auto-Exposure algorithm reconvergence measured on Colorchecker® chart in different transitions within different conditions.

The table shows convergence metrics measured on patch 18%, using CIE Lab Lightness (L* normalized to mastering peak display white luminance).

		Lowlight		Indoor		Outdoor	
		Average	Worse	Average	Worse	Average	Worse
Up transition	convergence time (s)	1	1.3	0.9	1.1	0.9	1
	oscillation (s)	0	0	0	0	0	0
	overshoot (ΔL*)	0	0	0	0	0	0
	convergence time (s)	0.9	1.7	0.8	1.2	0.9	1.2
Down transition	oscillation (s)	0.2	1.3	0.1	0.8	0	0
	overshoot (ΔL*)	1	5.1	0.5	5.1	0	0

Auto-Exposure stability measured on face and dynamic range restitution during stable conditions.

	Outdoor								
Illuminant/Lux	100	00Lux_l	D55	1000Lux_D65					
ΔEV (stops)		0		()	4	1	7	
Motion	TP SS W			TP	SS	TP	SS	TP	SS
Diana Temporal Face Expo Result (Std)	0.9	5	6.7	0.6	4.4	0.3	3.6	0.2	4.4
Eugene Temporal Face Expo Result (Std)	0.3	0.6	0.7	0.2	0.7	0.3	0.5	0.5	0.7
Diana Temporal LCG (Std)						0.1	0.7	0	0.1
Eugene Temporal LCG (Std)						0	1.7	0	0.1

		Indoor							
Illuminant/Lux	100Lux_LED4000K								
ΔEV (stops)	0 4 7								
Motion	TP SS W TP SS W TP							SS	
Diana Temporal Face Expo Result (Std)	0.7	3.8	4.8	0.5	4.1	4.9	0.5	3	
Eugene Temporal Face Expo Result (Std)	0.3	8.0	0.9	0.2	0.6	1.3	0.3	1	
Diana Temporal LCG (Std)				0.9	1.4	1.7	-	-	
Eugene Temporal LCG (Std)				0.4	1.5	1.3	-	0	

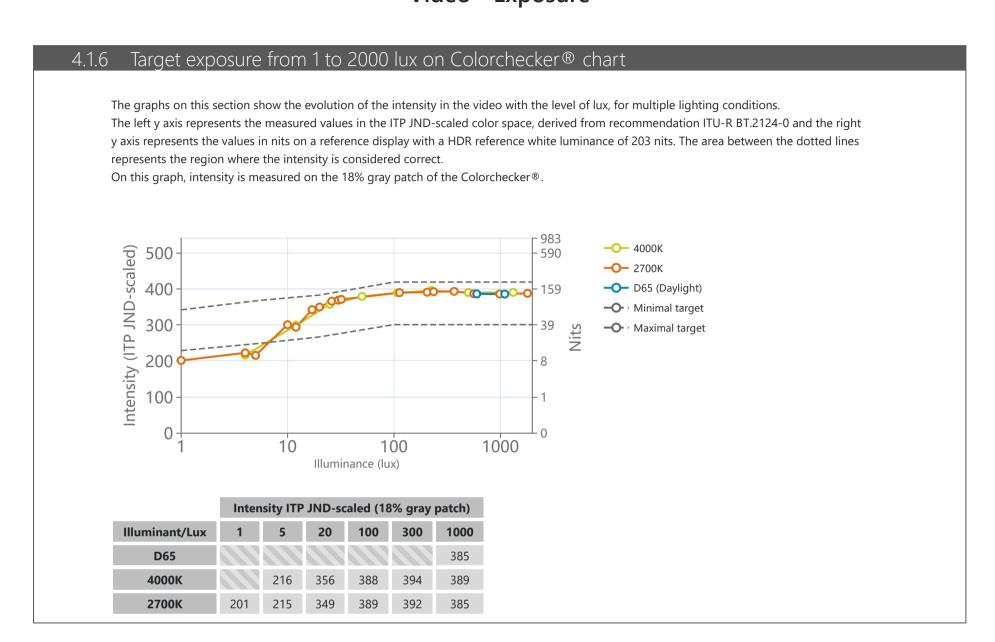
	Lowlight							
Illuminant/Lux		!	5Lux_LE	D2700k	(
ΔEV (stops)		0			9			
Motion	TP SS W TP SS W							
Diana Temporal Face Expo Result (Std)	1	4.9	4.5	1	3.5	2.2		
Eugene Temporal Face Expo Result (Std)	0.3	1.2	1.4	0.3	1.2	1.9		
Diana Temporal LCG (Std)				-	-	-		
Eugene Temporal LCG (Std)				0.1	0	0		

Motion abbreviations:

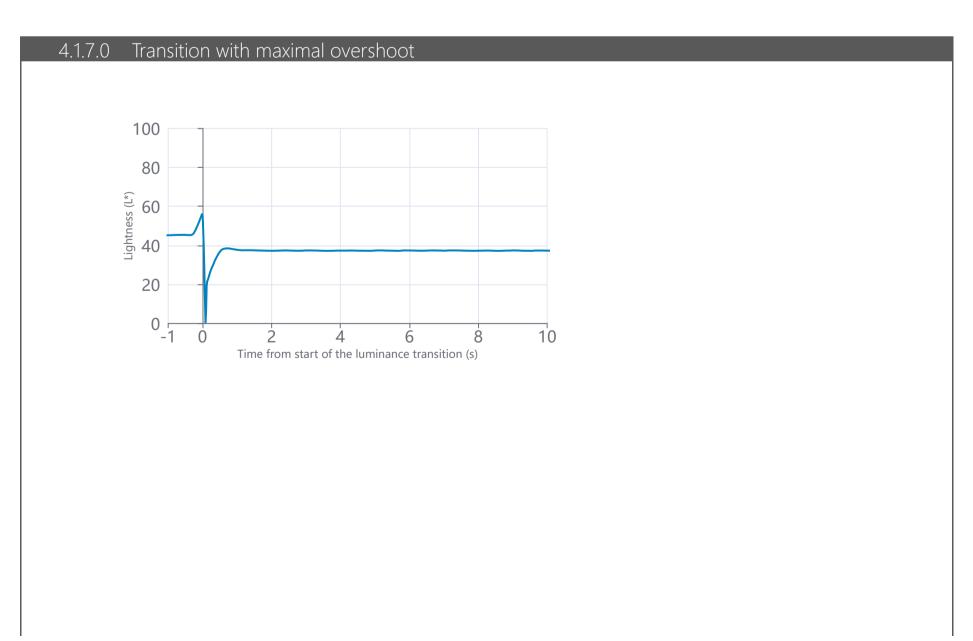
- TP: Tripod (Images shot with the device on a tripod.)
- SS: StillStand (Images shot with the device on a moving hexapod simulating a device hold with two hands.)
- W: Walk (Images shot with the device on a moving hexapod simulating a device hold while walking.)

4.1.5 Perceptual Scores Lowlight Indoor Outdoor 8 9 9

AppleiPhone16ProMax DxOMark Camera Report Video - Exposure



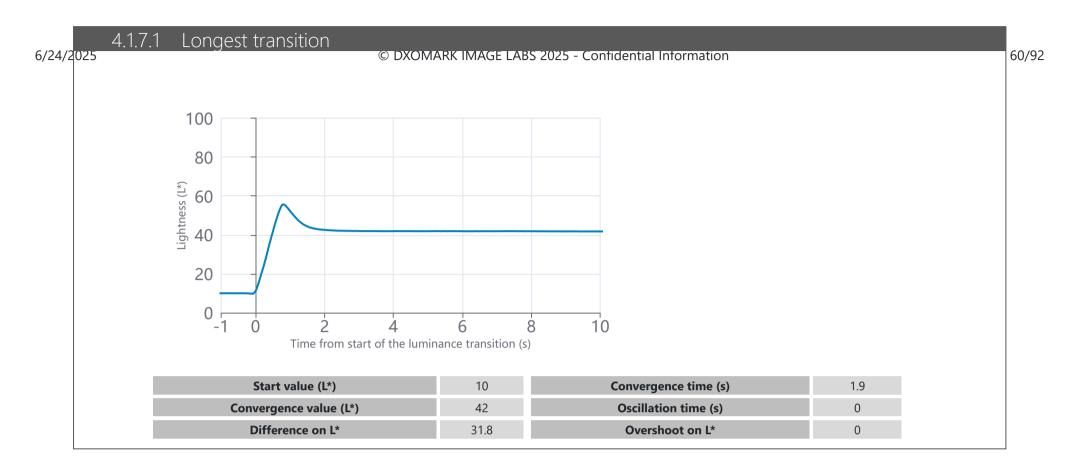
4.1.7 Convergence and oscillation times

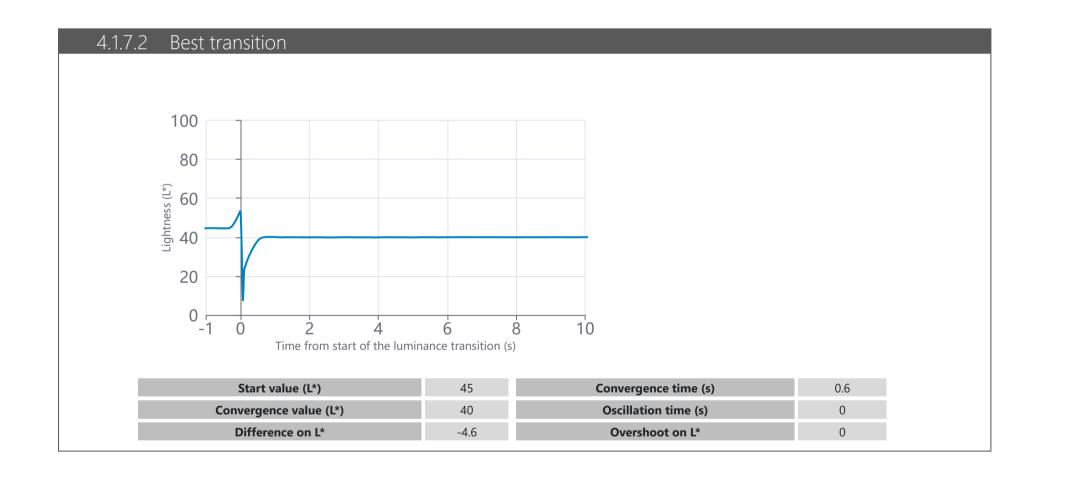


Start value (L*)	45	Convergence time (s)	0.9						
Convergence value (L*)	AppleiPhoi	ne16Pr ⊙l√laix ® (s)	0.2						
Difference on L*	-8	Overshoot on L*	1.2						
DxOMark									

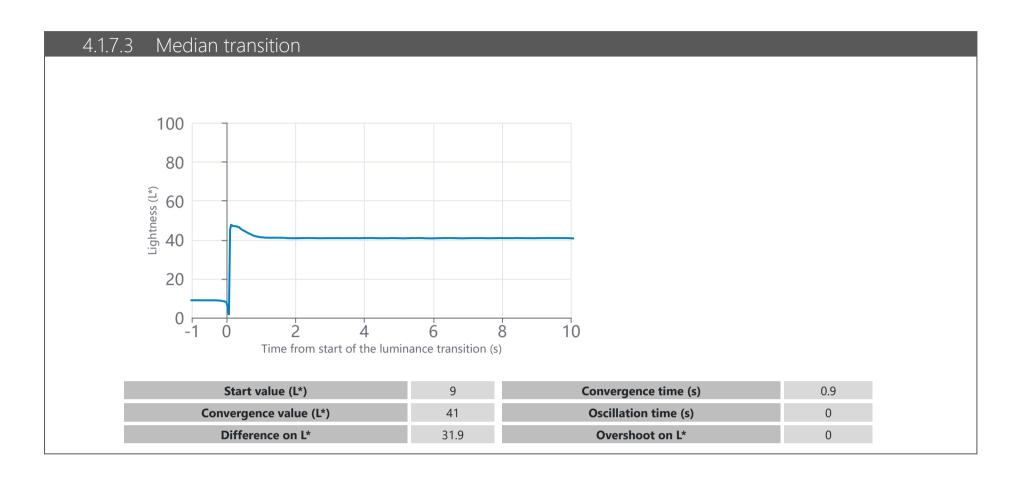
Camera Report

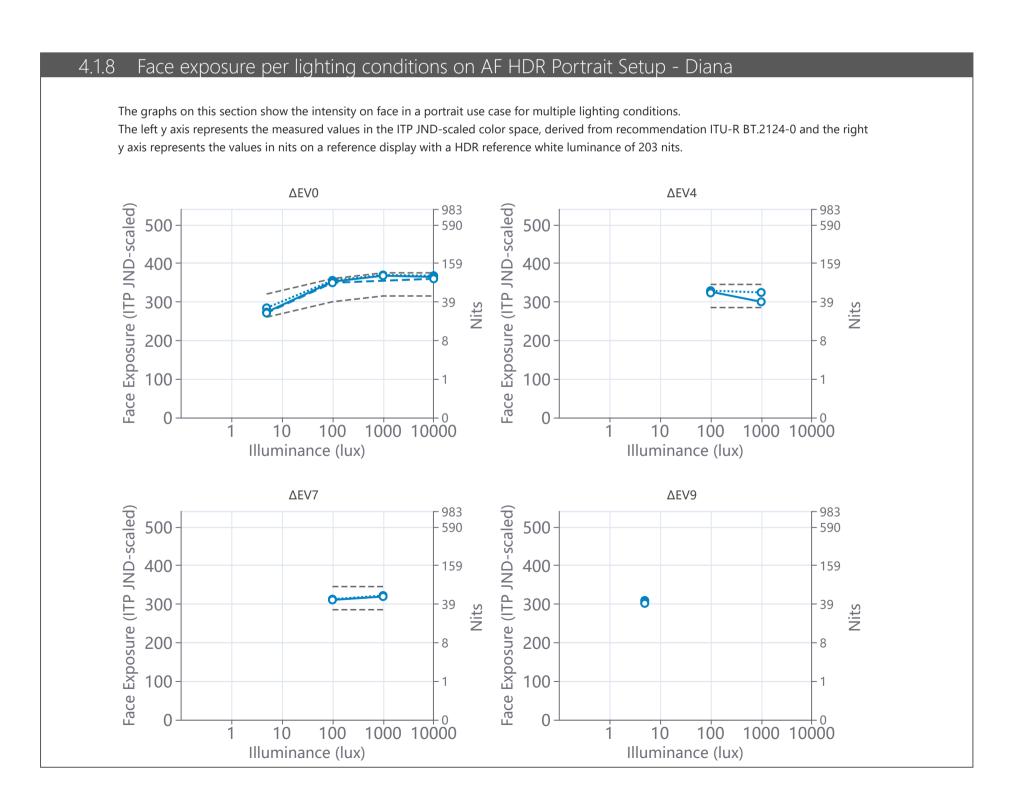
Video - Exposure



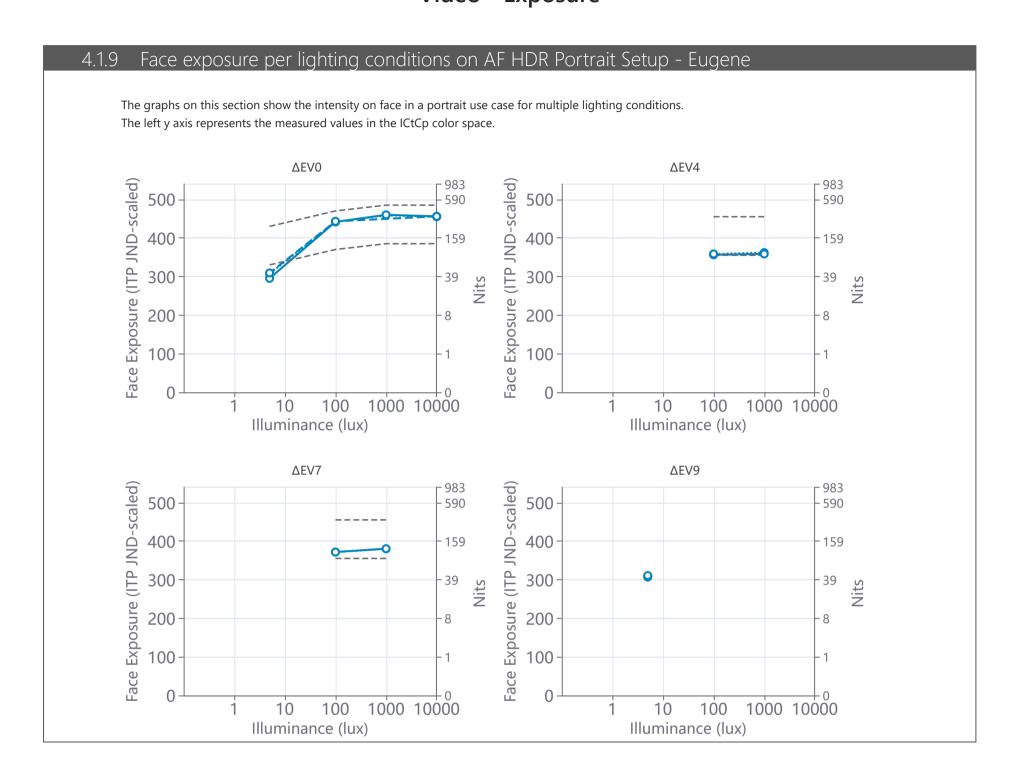


AppleiPhone16ProMax DxOMark Camera Report Video - Exposure



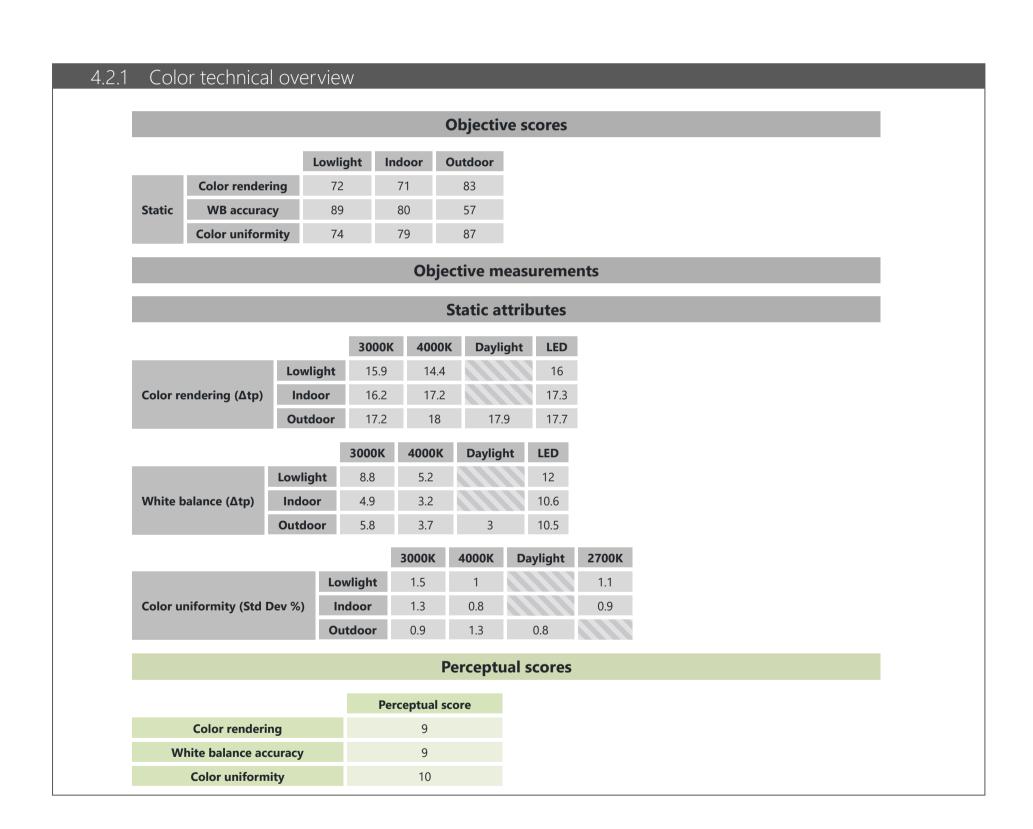


AppleiPhone16ProMax DxOMark Camera Report Video - Exposure



Video - Color

4.2.0	Scores		
		Color	
		125	
	Scores per scene type		
	Lowlight	Indoor	Outdoor
	105	127	139



AppleiPhone16ProMax DxOMark Camera Report Video - Color

4.2.2 White balance from 1 to 1000 lux

4.2.2.0 White balance error from 1 to 1000 lux

White balance to neutral gray shift measured as Δ tp value derived from the ITP JND-scaled color space on Colorchecker® gray patches. The table show results for different light conditions characterized by their illuminant characteristics and illuminance level in lux.

		Δtp on gray patches									
Illuminant/lux	1	5	20	100	200	300	1000				
Daylight							3.1				
4000K		7	4.9	3.6		3.3	3.7				
3000K		11.7	10.1	5.8		4.1	5.8				
2700K	15.4	10.6	10.5		11.1	10					

Video - Color

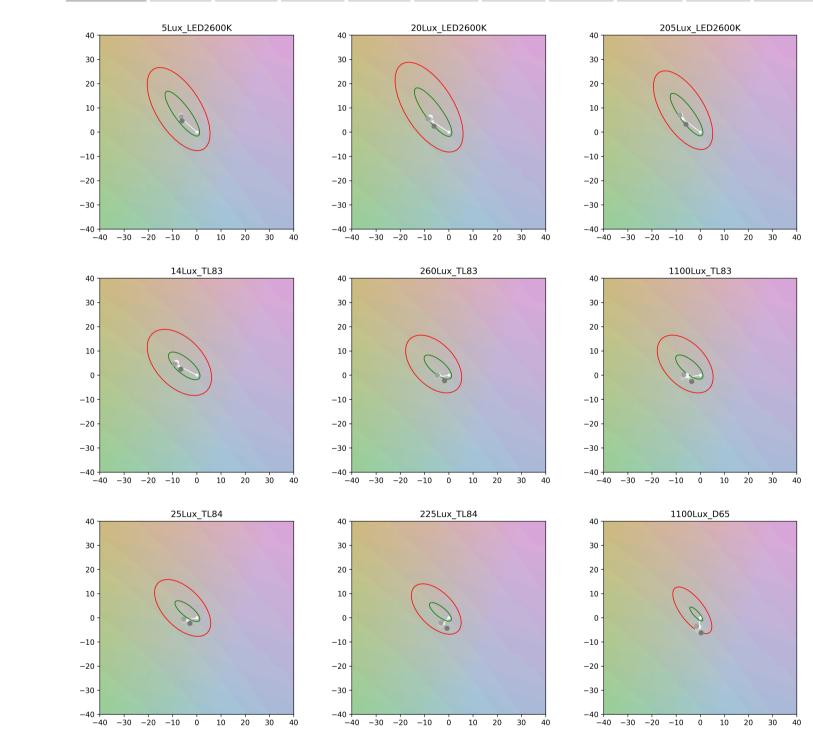
4.2.2.1 White balance accuracy

Patches are measured in the ITP JND-scaled color space, derived from recommendation ITU-R BT.2124-0

The conversion to ITP JND-scaled color space uses Bradford adaptation from the white point measured in our labs to the D65 standard for each illuminant.

Patches references colors are computed from our calibrated laboratories. References colors are adapted to the measured luminance of each patch.

Illuminant	2700K (5 lux)	2700K (20 lux)	3000K (20 lux)	4000K (20 lux)	2700K (200 lux)	3000K (300 lux)	4000K (300 lux)	3000K (1000 lux)	4000K (1000 lux)	D65 (1000 lux)
Δtp patch 19	8.2	7.9	7.6	2.9	8	1.9	2.6	2.5	1.5	3.6
Δtp patch 21	10.4	10.7	10.3	5.1	12	4.8	4	6.8	4.3	3.7
Δtp patch 23	10.8	9.4	9.6	4.3	9.5	3.2	2.7	4.8	3.2	3.5



Video - Color

4.2.3 Color rendering measurements

4.2.3.0 Color rendering from 1 to 1000 lux

Δtp value on Colorchecker© for different illumination values

		Δtp on all patches									
Illuminant/lux	1	5	20	100	200	300	1000				
D65							18				
4000K		10.8	14.8	16.5		17.4	18				
3000K		14.9	15.8	16.5		15.6	17.2				
2700K	19.5	13.9	14.7		17.7	17.2					

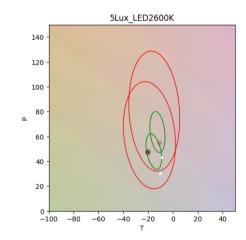
4.2.3.1 Color rendering - Skin tones

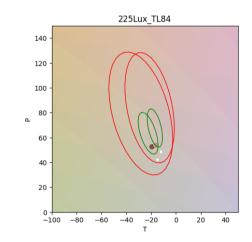
Patches are measured in the ITP JND-scaled color space, derived from recommendation ITU-R BT.2124-0

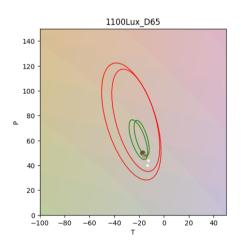
The conversion to ITP JND-scaled color space uses Bradford adaptation from the white point measured in our labs to the D65 standard for each illuminant

Patches references colors are computed from our calibrated laboratories. References colors are adapted to the measured luminance of each patch.

Illuminant	2700K (5 lux)	2700K (20 lux)	3000K (20 lux)	4000K (20 lux)	2700K (200 lux)	3000K (300 lux)	4000K (300 lux)	3000K (1000 lux)	4000K (1000 lux)	D65 (1000 lux)
Δtp patch 1	5.1	13	11.9	7.5	19.9	10	8.6	11.9	11.1	7.3
Δtp patch 2	6.3	11.5	14.4	8.7	13.4	9.1	7.3	11.1	7.9	5







Video - Color

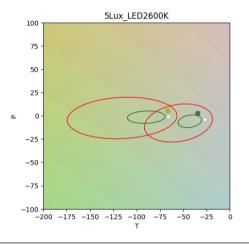
4.2.3.2 Color rendering - Greenery tones

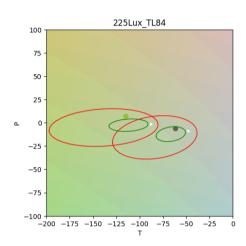
Patches are measured in the ITP JND-scaled color space, derived from recommendation ITU-R BT.2124-0

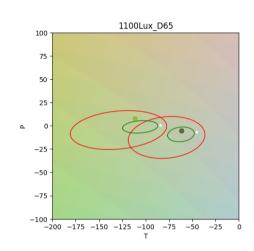
The conversion to ITP JND-scaled color space uses Bradford adaptation from the white point measured in our labs to the D65 standard for each illuminant.

Patches references colors are computed from our calibrated laboratories. References colors are adapted to the measured luminance of each patch.

Illuminant	2700K (5 lux)	2700K (20 lux)	3000K (20 lux)	4000K (20 lux)	2700K (200 lux)	3000K (300 lux)	4000K (300 lux)	3000K (1000 lux)	4000K (1000 lux)	D65 (1000 lux)
Δtp patch 4	8.6	7.2	10	9.5	12.7	9.1	13.8	12.8	15.1	14.1
Δtp patch	10.5	8.8	20.4	24.2	16	19.4	29.3	25	30.3	28.1







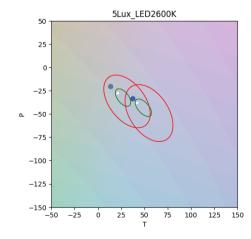
4.2.3.3 Color rendering - Sky tones

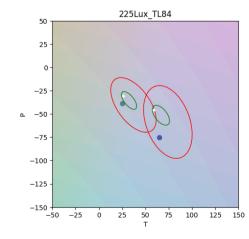
Patches are measured in the ITP JND-scaled color space, derived from recommendation ITU-R BT.2124-0

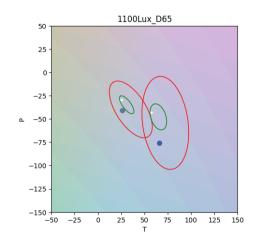
The conversion to ITP JND-scaled color space uses Bradford adaptation from the white point measured in our labs to the D65 standard for each illuminant.

Patches references colors are computed from our calibrated laboratories. References colors are adapted to the measured luminance of each patch.

Illuminant	2700K (5 lux)	2700K (20 lux)	3000K (20 lux)	4000K (20 lux)	2700K (200 lux)	3000K (300 lux)	4000K (300 lux)	3000K (1000 lux)	4000K (1000 lux)	D65 (1000 lux)
Δtp patch	17.8	10.3	10	6	9.6	5.6	8.3	6.8	8.5	11.3
Δtp patch 8	22.4	3.6	8.8	19.9	10.4	23.3	28.9	23.5	28.8	32.4







Video - Color

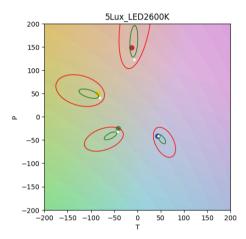
4.2.3.4 Color rendering - yellow, red, green and blue colors

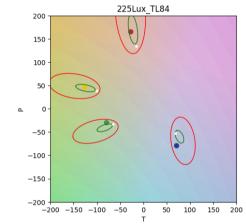
Patches are measured in the ITP JND-scaled color space, derived from recommendation ITU-R BT.2124-0

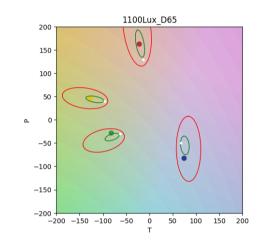
The conversion to ITP JND-scaled color space uses Bradford adaptation from the white point measured in our labs to the D65 standard for each illuminant.

Patches references colors are computed from our calibrated laboratories. References colors are adapted to the measured luminance of each patch.

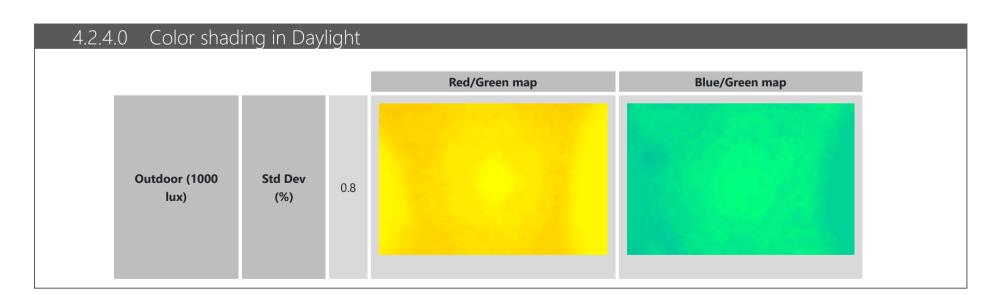
Illuminant	2700K (5 lux)	2700K (20 lux)	3000K (20 lux)	4000K (20 lux)	2700K (200 lux)	3000K (300 lux)	4000K (300 lux)	3000K (1000 lux)	4000K (1000 lux)	D65 (1000 lux)
Δtp patch 16	7.5	18.9	21.5	26.2	26.4	21.4	25.7	22	26.5	31.7
Δtp patch	5.7	24.6	25.2	23.6	32.6	32.5	29.5	34.4	31.2	28.9
Δtp patch	18.8	7.8	12.2	12.2	7.4	7.5	15.8	11.1	17.2	17.6
Δtp patch	29.1	8.3	11	15.9	3	15.1	23.4	15.3	22.4	29.3







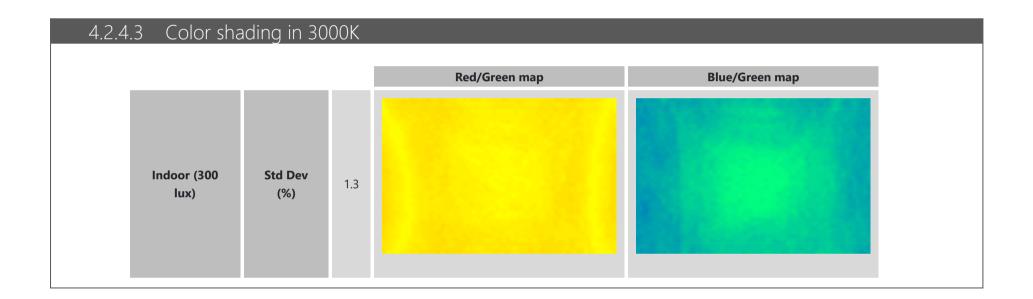
4.2.4 Color shading



Red/Green map Blue/Green map







AppleiPhone16ProMax DxOMark Camera Report Video - Autofocus

4.3.0	Scores				
		Autofocus			
		118			
Autofocus scores per scene type					
	Lowlight	Indoor	Outdoor		
	123	126	106		

4.3.1 Autofocus techni	Autofocus technical overview								
	Perceptual scores								
	Lowlight	Indoor	Outdoor						
Accuracy And Stability	10	10	8						

Video - Texture and noise

1.0 Scores								
	Texture			Noise				
	115		124					
Texture scores per scene	type		Noise scores per scene type					
Lowlight	Indoor	Outdoor	Lowlight	Indoor	Outdoor			
97	115	128	88	125	150			

4.4.1 Texture technical overview

Objective measurements

Texture (Deadleaves and DMC charts)

The viewing conditions used for the acutance calculation is a screen of 55 inches of diagonal and a resolution of 4K viewed from 1 meter.

	Lighting condition	Outdoor	Indo	or	Lowlight			
	Illuminant/Lux	Daylight (1000 lux)	4000K (300 lux)	LED (100 lux)	LED (20 lux)	LED (5 lux)	LED (1 lux)	
Deadleaves Texture	Acutance (%)	95	95	88	68	60	48	
Deadleaves Edge	Acutance (%)	92	91	90	74	55	43	
DMC Texture	Detail preservation score	53.4	50.9	39.3	23.4	28.9	0	

Texture (AFHDR Portrait Setups)

	Outdoor										
Illuminant/Lux	10	0000Lux_D	55	1000Lux_D65							
ΔΕV	0		0		4		7				
Motion	TP	SS	W	TP	SS	TP	SS	TP	SS		
Diana Face Detail Score	59	59	57	61	56	64	50	62	58		
Eugene Face Detail Score	72	72	71	74	72	77	76	77	76		

	Indoor									
Illuminant/Lux	100Lux_LED4000K									
ΔΕV		0			4	7				
Motion	TP	SS	W	TP	SS	W	TP	SS		
Diana Face Detail Score	52	47	40	51	45	38	47	43		
Eugene Face Detail Score	65	61	52	70	63	54	73	70		

	Lowlight								
Illuminant/Lux	5Lux_LED2700K								
ΔΕV	0 9								
Motion	TP	SS	W	TP	SS	W			
Diana Face Detail Score	27	25	18	28	19	16			
Eugene Face Detail Score	54	45	32	52	51	34			

Motion abbreviations:

- TP: Tripod (Images shot with the device on a tripod.)
- SS: StillStand (Images shot with the device on a moving hexapod simulating a device hold with two hands.)
- W: Walk (Images shot with the device on a moving hexapod simulating a device hold while walking.)

Video - Texture and noise

4.4.2 Noise technical overview

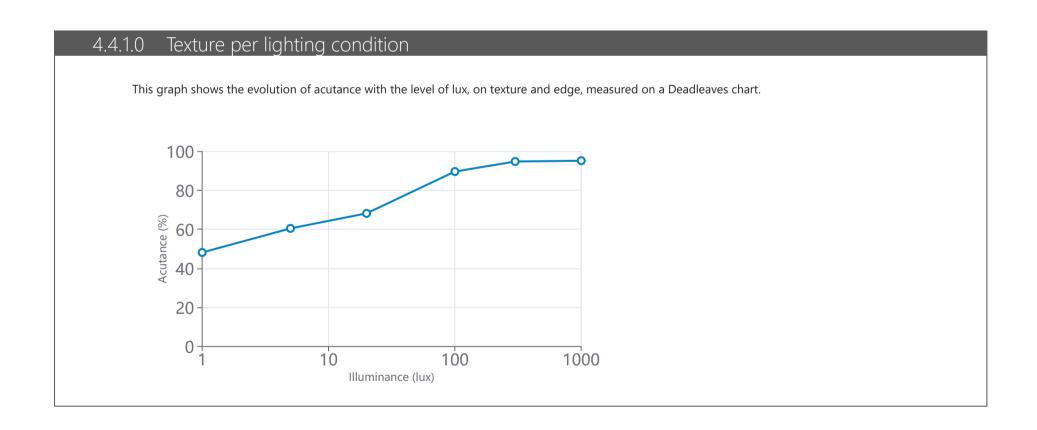
Objective measurements

Noise (Visual Noise Chart)

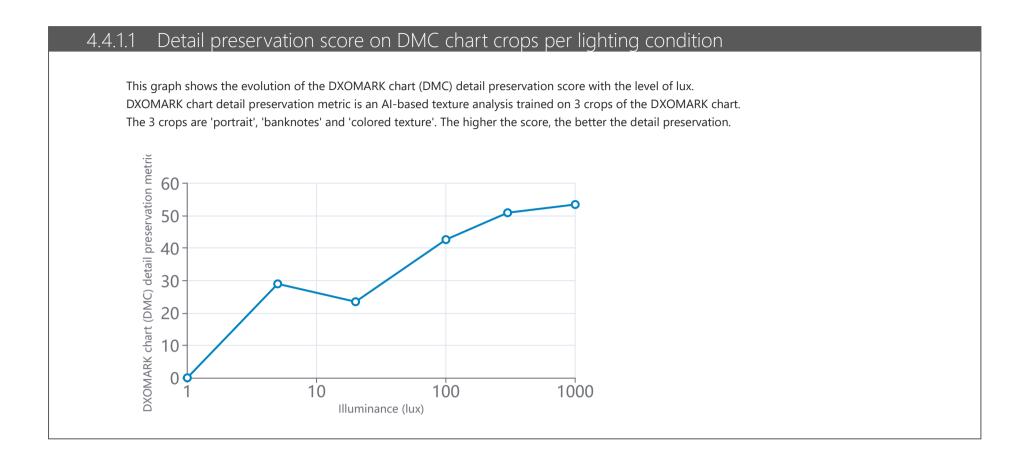
The viewing conditions used for the visual noise calculation is a screen of 55 inches of diagonal and a resolution of 4K viewed from 1 meter.

	Lighting condition	Outdoor	Indo	or	Lowlight			
	Illuminant/Lux	Daylight (1000 lux)	4000K (300 lux)	LED (100 lux)	LED (20 lux)	LED (5 lux)	LED (1 lux)	
Tomporal	Temporal Visual Noise (JND)	0.2	0.5	0.6	0.8	0.5	1.6	
Temporal analysis	Temporal Noise chromaticity ratio (%)	48	61	38	29	26	58	
Spatial analysis	Visual Noise (JND)	2.7	2.9	3.1	3	3.1	5.8	
Spatial analysis	Noise chromaticity ratio (%)	6	6	4	6	11	15	

4.4.3 Texture noise perceptual scores Perceptual scores Texture Noise Lowlight Indoor Outdoor 5 5 6 6 6 8 10



Video - Texture and noise

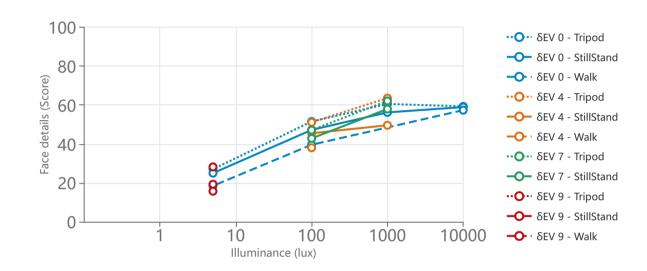


Video - Texture and noise

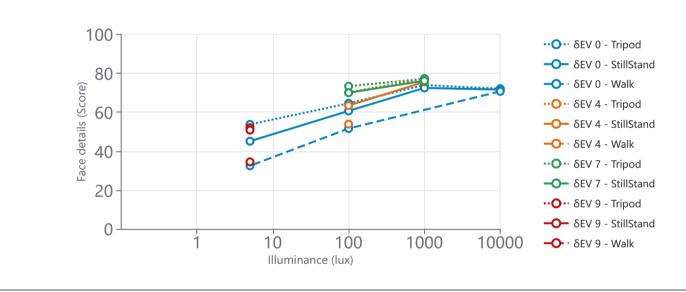
4.4.1.2 Face detail preservation per lighting condition

This graph shows the evolution of face details metric with respect to lighting condition. Face detail metric is a Al-based texture analysis performed on the realistic mannequin face in the DXOMARK AFHDR Portrait set-up. The metric is expressed in JOD (Just-Objectionable-Difference). The higher the metric the better the details preservation. A difference of 1 unit states that the probability of an image A being qualified as 'of better quality' than image B is 0.75.

AFHDR Portrait Diana Chart:



AFHDR Portrait Eugene Chart:



4.4.4 Texture and noise measurements

4.4.4.0 Daylight - 10000 lux

These tables show the face details preservation on the realistic mannequin of AFHDR Portrait at all EV conditions.

	Afhdr	Portrait	Diana	Afhdr	Portrait E	ugene		
ΔΕV		0			0			
Motion	TP	SS	W	TP	SS	W		
Face detail score	59	59	57	72	72	71		

Video - Texture and noise

4.4.4.1 Daylight - 1000 lux

This table shows texture and edge acutance statistics.

Textu	ıre	Edge			
Acutance	St. dev.	Acutance	St. dev.		
95	0	92	0		

These tables show the temporal visual noise and spatial visual noise statistics at L*=50.

	Temporal visual nois	se	Spatial visual noise			
Temporal visual noise (JND)	Luminance noise ratio (%)	Chromaticity noise ratio (%)	Temporal visual noise (JND)	Luminance noise ratio (%)	Chromaticity noise ratio (%)	
0.2	52	48	2.7	94	6	

These tables show the face details preservation on the realistic mannequin of AFHDR Portrait at all EV conditions.

		AfhdrPortrait Diana				AfhdrPortrait Eugene						
ΔΕV	C)	4	4 7		0		4		7		
Motion	TP	SS	TP	SS	TP	SS	TP	SS	TP	SS	TP	SS
Face detail score	61	56	64	50	62	58	74	72	77	76	77	76

4.4.4.2 4000K - 300 lux

This table shows texture and edge acutance statistics.

Textu	ire	Edge			
Acutance	St. dev.	Acutance	St. dev.		
95	0	91	0		

These tables show the temporal visual noise and spatial visual noise statistics at L*=50.

	Temporal visual nois	se .	Spatial visual noise			
Temporal visual noise (JND)	Luminance noise ratio (%)	Chromaticity noise ratio (%)	Temporal visual noise (JND)	Luminance noise ratio (%)	Chromaticity noise ratio (%)	
0.5	39	61	2.9	94	6	

4.4.4.3 LED2700K - 100 lux

This table shows texture and edge acutance statistics.

Textu	ıre	Edge				
Acutance	St. dev.	Acutance	St. dev.			
88	1	90	0			

These tables show the temporal visual noise and spatial visual noise statistics at L*=50.

	Temporal visual nois	se	Spatial visual noise			
Temporal visual noise (JND)	Luminance noise ratio (%)	Chromaticity noise ratio (%)	Temporal visual noise (JND)	Luminance noise ratio (%)	Chromaticity noise ratio (%)	
0.6	62	38	3.1	96	4	

Video - Texture and noise

4.4.4.4 LED4000K - 100 lux

These tables show the face details preservation on the realistic mannequin of AFHDR Portrait at all EV conditions.

		AfhdrPortrait Diana								Afh	drPorti	ait Eug	ene			
ΔΕV		0			4			7		0			4			7
Motion	TP	SS	W	TP	SS	W	TP	SS	TP	SS	W	TP	SS	W	TP	SS
Face detail score	52	47	40	51	45	38	47	43	65	61	52	70	63	54	73	70

4.4.4.5 LED - 20 lux

This table shows texture and edge acutance statistics.

Textu	ire	Edge			
Acutance	St. dev.	Acutance	St. dev.		
68	1	74	0		

These tables show the temporal visual noise and spatial visual noise statistics at L*=50.

	Temporal visual nois	se	Spatial visual noise			
Temporal visual noise (JND)	Luminance noise ratio (%)	Chromaticity noise ratio (%)	Temporal visual noise (JND)	Luminance noise ratio (%)	Chromaticity noise ratio (%)	
0.8	71	29	3	94	6	

4.4.4.6 LED - 5 lux

This table shows texture and edge acutance statistics.

Textu	ire	Edge				
Acutance	St. dev.	Acutance	St. dev.			
60	1	55	0			

These tables show the temporal visual noise and spatial visual noise statistics at L*=50.

	Temporal visual nois	se	Spatial visual noise				
Temporal visual noise (JND)	Luminance noise ratio (%)	Chromaticity noise ratio (%)	Temporal visual noise (JND)	Luminance noise ratio (%)	Chromaticity noise ratio (%)		
0.5	74	26	3.1	89	11		

These tables show the face details preservation on the realistic mannequin of AFHDR Portrait at all EV conditions.

	AfhdrPortrait Diana				AfhdrPortrait Eugene							
ΔΕV		0		9		0			9			
Motion	TP	SS	W	TP	SS	W	TP	SS	W	TP	SS	W
Face detail score	27	25	18	28	19	16	54	45	32	52	51	34

AppleiPhone16ProMax **DxOMark** Camera Report Video - Texture and noise

4.4.4.7 LED - 1 lux

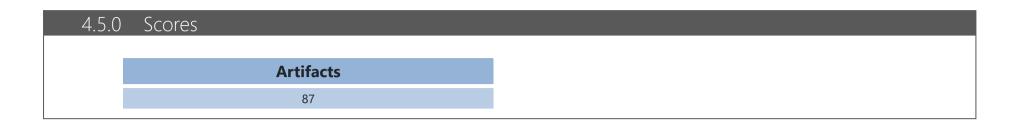
This table shows texture and edge acutance statistics.

Textu	re	Edge				
Acutance	St. dev.	Acutance	St. dev.			
48	1	43	1			

These tables show the temporal visual noise and spatial visual noise statistics at $L^*=50$.

	Temporal visual nois	se	Spatial visual noise					
Temporal visual noise (JND)	Luminance noise ratio (%)	Chromaticity noise ratio (%)	Temporal visual noise (JND)	Chromaticity noise ratio (%)				
1.6	42	58	5.8	85	15			

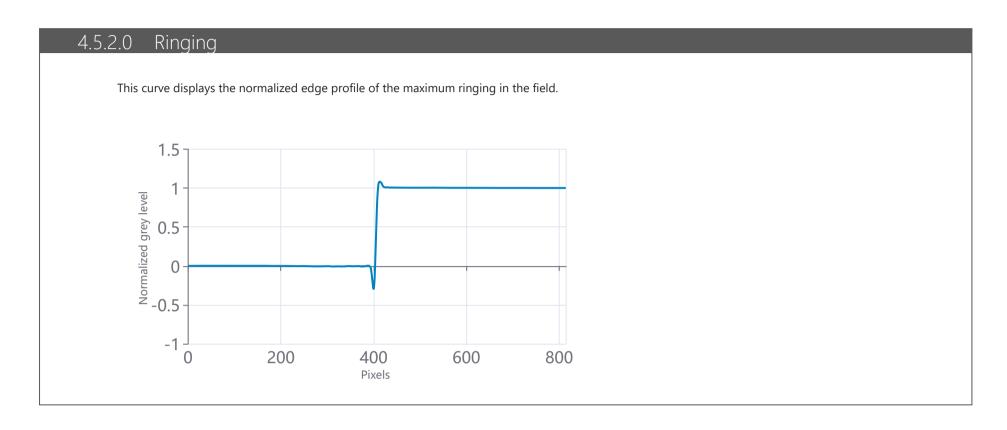
Video - Artifacts





Video - Artifacts

Artifacts measurements



Frame rate and frame time decomposition

These curves displays the reverse of the exposure time and the frame time as a function of the luminance.

Lux Level	1	5	10	20	100	300	1000	10000
Frame rate (fps)	30.4	60.9	60.9	60.9	61.5	61.5	61.5	60
Exposure Time (ms)	33	16	16	16	13	10	6	
Shutter Angle (°)	360	360	360	360	288	222	141	
Rolling shutter time (ms)	3	3	3	3	2	2	2	

Natural scene - perceptual scores

	Artifact score from 0 (worst) to 5 (best)	Penalty (points)
Aliasing/Maze/Moire	3.5	2
Color fringing	5	0
Color quantization	3.3	2
Distortion	5	0
Face rendering	5	0
Flare	3.5	2
Flickering	5	0
Ghosting	4.3	2
Hue shift near saturation	4.8	1
Judder effect	5	0
Lens shading	5	0
Ringing	3.9	1

AppleiPhone16ProMax DxOMark Camera Report Video - Stabilization

.6.0 Scores		
	Stabilization	
	122	
Stabilization scores pe	er scene type	
Lowlight	Indoor	Outdoor
110	127	129

4.6.1 Stabilization technical overv	riew		
Motion compensati	Motion compensation		
	Global		Global
Static Motion	9	Change scene effect	10
Walk Motion	8	Deformations and jello effect	10
		Frame shift	10
		Sharpness difference between frames	9

4.7.0	Scores	
		Score
	Zoom	75
	Wide	145
	Tele	122

Zoom video tec	hnical o	verview	/					
			Objecti	ve meas	urements			
Objective score per lighting	condition for	each meas	ured full-fra	ıme equival	ent focal length			
Equivalent focal length	16 mm	59 mm	72 mm	93 mm	149 mm			
Zoom ratio	0.5x	2.0x	2.4x	3.1x	5.0x			
UI Button	True	True	False	False	True			
Outdoor	52	44	34	19	23			
Indoor	12	24	9	1	8			
Lowlight	41	15	3	1	1			
Perceptual scores								
Lowlight	Indoor		Outdoor					
87	89		94					

4.7.2 Objective measurements

4.7.2.0 Fixel focal length video

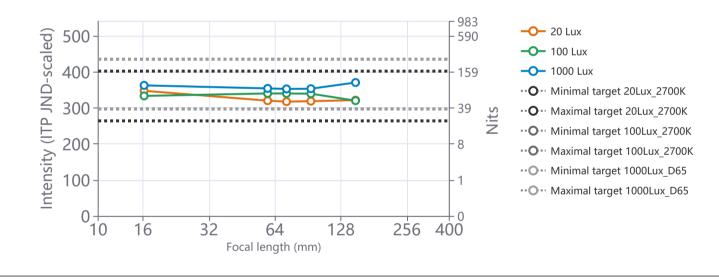
4.7.2.0.0 Exposure

The target exposure value corresponds to the intensity (ITP JND-scaled) measured on the DXOMARK chart (DMC) portrait crop. The measurement is performed on the DMC portrait crop at different distances while zooming and keeping the same framing. The corresponding full-frame equivalent focal length is measured for each distance.

This table shows the maximum and average intensity values in JND for each measured focal length in alllighting conditions as well as the measurement standard deviation value.

	Equivalent focal length	16 mm	59 mm	72 mm	93 mm	149 mm
	Zoom ratio	0.5x	2.0x	2.4x	3.1x	5.0x
	UI Button	True	True	False	False	True
40001 (0.11)	Average	362.3	353.8	352.4	353	370.1
1000 lux (Outdoor)	Repeatability	0.5	0.4	0.3	1.6	0.3
100 hay (lade ex)	Average	333	339.9	339.7	339.2	319.9
100 lux (Indoor)	Repeatability	0.9	1	0.7	1.5	1.7
20 loss (1 assiliabit)	Average	347.2	319.8	317.1	318.4	321.3
20 lux (Lowlight)	Repeatability	0.6	1.6	1.7	2.4	0.6

This graph shows the evolution of the intensity (ITP JND-scaled) measurement with respect to the level of lux formultiple lighting conditions. The x-axis represents the equivalent focal length measured for each corresponding shooting distance and the y-axis represents the average intensity value. Intensity target values are indicated for each lighting condition: for data points within this range the score is maximal.



Video - Zoom

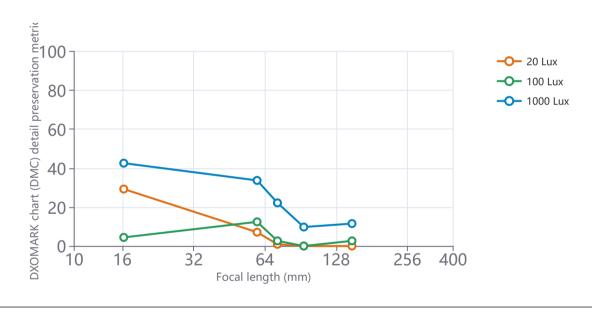
4.7.2.0.1 Details Preservation

DXOMARK chart (DMC) detail preservation score is derived from an Al-based metric trained to evaluate textureand details rendering on a selection of crops of our DMC. The measurement is performed on the DMC portraitcrop at different distances when zooming: the corresponding full-frame equivalent focal length is measured for each distance.

This table shows the best and average DMC details preservation score for each measured focal length in all lightconditions as well as the corresponding repeatability score.

	Equivalent focal length	16 mm	59 mm	72 mm	93 mm	149 mm
	Zoom ratio	0.5x	2.0x	2.4x	3.1x	5.0x
	UI Button	True	True	False	False	True
	Best	43	34	22	10	12
1000 lux (Outdoor)	Average	42	32	21	8	11
	Repeatability	96	93	94	92	97
	Best	4	12	3	0	3
100 lux (Indoor)	Average	3	10	2	0	1
	Repeatability	94	94	96	97	94
	Best	29	7	1	0	0
20 lux (Lowlight)	Average	25	5	0	0	0
	Repeatability	87	94	97	96	97

This graph shows the evolution of the DMC details preservation Score with respect to the full-frame equivalent focal length for different lighting conditions. The x-axis represents the equivalent focal length measured foreach corresponding shooting distance and the y-axis represents the maximum details preservation metric score:higher value means better quality.



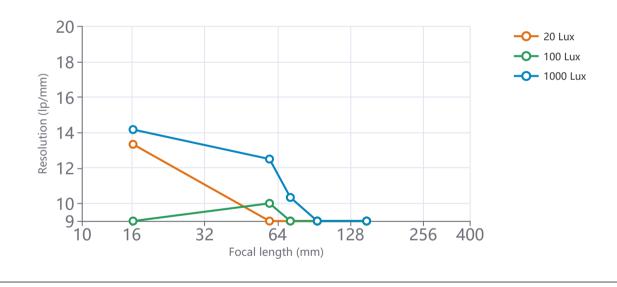
Video - Zoom

4.7.2.0.2 Resolution

The resolution measurement corresponds to the resolved line pairs per millimeters measured on the banknotecrop of the DXOMARK chart (DMC). The value expands from 9 lp/mm (lowest quality) to 20 lp/mm (best quality). The measurement is performed on the DMC banknote crop at different distances when zooming: the correspondingfull-frame equivalent focal length is measured for each distance. This table shows the maximum and average frequency of distinguishable line pairs measured in thehorizontal, vertical, and diagonal directions in line per millimeters unit as well as themeasurement standard deviation value.

	Equivalent focal length	16 mm	59 mm	72 mm	93 mm	149 mm
	Zoom ratio	0.5x	2.0x	2.4x	3.1x	5.0x
	UI Button	True	True	False	False	True
	Maximum	14.2	12.5	10.3	9	9
1000 lux (Outdoor)	Average	13.9	12.1	10	9	9
	Repeatability	0	0	0	0	0
	Maximum	9	10	9	9	9
100 lux (Indoor)	Average	9	9.6	9	9	9
	Repeatability	0	0	0	0	0
	Maximum	13.3	9	9	9	9
20 lux (Lowlight)	Average	12.6	9	9	9	9
	Repeatability	0	0	0	0	0

This graph shows the evolution of the resolution measurement with respect to the full-frame equivalent focal length for different lighting conditions. The x-axis represents the equivalent focal length measured for each corresponding shooting distance and the y-axis represents the maximum resolution measurement value.



4.7.2.1 Zoom-in video

4.7.2.1.0 Exposure

The target exposure value corresponds to the intensity (ITP JND-scaled) measured on the DXOMARK chart (DMC) portrait crop. The measurement is performed on the DMC portrait crop at different distances while zooming and keeping the same framing. The corresponding full-frame equivalent focal length is measured for each distance.

This table shows the maximum and average intensity values in JND for each measured focal length in alllighting conditions as well as the measurement standard deviation value.

	Equivalent focal length	72 mm	149 mm
	Zoom ratio	2.4x	5.0x
	UI Button	False	False
100 loss (londo os)	Average	356.3	353.7
100 lux (Indoor)	Repeatability	0.7	1.7

This graph shows the evolution of the intensity (ITP JND-scaled) measurement with respect to the level of lux formultiple lighting conditions. The x-axis represents the equivalent focal length measured for each corresponding shooting distance and the y-axis represents the average intensity value. Intensity target values are indicated for each lighting condition: for data points within this range the score is maximal.

4.7.2.1.1 Details Preservation

DXOMARK chart (DMC) detail preservation score is derived from an Al-based metric trained to evaluate textureand details rendering on a selection of crops of our DMC. The measurement is performed on the DMC portraitcrop at different distances when zooming: the corresponding full-frame equivalent focal length is measured for each distance.

This table shows the best and average DMC details preservation score for each measured focal length in all lightconditions as well as the corresponding repeatability score.

	Equivalent focal length	72 mm	149 mm
	Zoom ratio	2.4x	5.0x
	UI Button	False	False
	Best	2.7	0
100 lux (Indoor)	Average	1.1	0
	Repeatability	95	97

This graph shows the evolution of the DMC details preservation Score with respect to the full-frame equivalent focal length for different lighting conditions. The x-axis represents the equivalent focal length measured foreach corresponding shooting distance and the y-axis represents the maximum details preservation metric score:higher value means better quality.

4.7.2.1.2 Resolution

The resolution measurement corresponds to the resolved line pairs per millimeters measured on the banknotecrop of the DXOMARK chart (DMC). The value expands from 9 lp/mm (lowest quality) to 20 lp/mm (best quality). The measurement is performed on the DMC banknote crop at different distances when zooming: the correspondingfull-frame equivalent focal length is measured for each distance. This table shows the maximum and average frequency of distinguishable line pairs measured in thehorizontal, vertical, and diagonal directions in line per millimeters unit as well as themeasurement standard deviation value.

	Equivalent focal length	72 mm	149 mm
	Zoom ratio	2.4x	5.0x
	UI Button	False	False
	Maximum	9	9
100 lux (Indoor)	Average	9	9
	Repeatability	0	0

This graph shows the evolution of the resolution measurement with respect to the full-frame equivalent focal length for different lighting conditions. The x-axis represents the equivalent focal length measured for each corresponding shooting distance and the y-axis represents the maximum resolution measurement value.

Illuminants - Photo setups

5.1.0 Photo - Illuminants correspondence tables per setup

Here are the real illuminants (from ALS or MLS) corresponding to the generic illuminants used in the Photo part of this report.

Generic lighting condition Lighting condition used in this report 1Lux_H_EV_0 1Lux_SME_H_EV_0 5Lux_2700K_EV_0 320____LED2700K_EV_0

5Lux_2700K_EV_0	5Lux_LED2700K_EV_0
20Lux_2700K_EV_0	20Lux_LED2700K_EV_0
100Lux_4000K_EV_0	100Lux_LED4000K_EV_0
300Lux_4000K_EV_0	300Lux_LED4000K_EV_0
1000Lux_D65_EV_0	1000Lux_SME_D65_EV_0
100Lux_4000K_EV_2	100Lux_LED4000K_EV_2
1000Lux_D65_EV_2	1000Lux_SME_D65_EV_2
20Lux_2700K_EV_4	20Lux_LED2700K_EV_4
100Lux_4000K_EV_4	100Lux_LED4000K_EV_4
1000Lux_D65_EV_4	1000Lux_SME_D65_EV_4
20Lux_2700K_EV_7	20Lux_LED2700K_EV_7
100Lux_4000K_EV_7	100Lux_LED4000K_EV_7
1000Lux_D65_EV_7	1000Lux_SME_D65_EV_7

5.1.2 DMC

5.1.1 AFHDR

Generic lighting condition	Lighting condition used in this report
5Lux_2700K	5Lux_SME_A
20Lux_2700K	20Lux_SME_A
100Lux_2700K	100Lux_SME_A
300Lux_2700K	300Lux_SME_A
20Lux_4000K	20Lux_SME_TL84
100Lux_4000K	100Lux_SME_TL84
300Lux_4000K	300Lux_SME_TL84
1000Lux_4000K	1000Lux_SME_TL84
1000Lux_D65	1000Lux_SME_D65
1Lux_H	1Lux_SME_H

Illuminants - Photo setups

5.1.3	ColorChecker	
	Generic lighting condition	Lighting condition used in this report
	5Lux_3000K	5Lux_SME_TL83
	5Lux_2700K	5Lux_SME_A
	5Lux_H	5Lux_SME_H
	20Lux_3000K	20Lux_SME_TL83
	20Lux_4000K	20Lux_SME_TL84
	20Lux_2700K	20Lux_SME_A
	20Lux_H	20Lux_SME_H
	100Lux_3000K	100Lux_SME_TL83
	100Lux_4000K	100Lux_SME_TL84
	100Lux_D65	100Lux_SME_D65
	100Lux_2700K	100Lux_SME_A
	300Lux_3000K	300Lux_SME_TL83

300Lux_4000K 300Lux_D65

300Lux_2700K

1000Lux_3000K

1000Lux_4000K

1000Lux_D65

300Lux_SME_TL84

300Lux_SME_D65

300Lux_SME_A

1000Lux_SME_TL83

1000Lux_SME_TL84

1000Lux_SME_D65

.4 Greychart	
Generic lighting condition	Lighting condition used in this report
20Lux_3000K	20Lux_SME_TL83
20Lux_4000K	20Lux_SME_TL84
20Lux_2700K	20Lux_SME_A
20Lux_H	20Lux_SME_H
300Lux_3000K	300Lux_SME_TL83
300Lux_4000K	300Lux_SME_TL84
300Lux_D65	300Lux_SME_D65
300Lux_2700K	300Lux_SME_A
1000Lux_3000K	1000Lux_SME_TL83
1000Lux_4000K	1000Lux_SME_TL84
1000Lux_D65	1000Lux_SME_D65

5.1.5	AFHDR Portrait Eu	gene
	Generic lighting condition	Lighting condition used in this report
	5Lux_2700K_EV_0	5Lux_LED2700K_EV_0
	100Lux_4000K_EV_0	100Lux_LED4000K_EV_0
	1000Lux_D65_EV_0	1000Lux_SME_D65_EV_0
	100Lux_4000K_EV_4	100Lux_LED4000K_EV_4
	1000Lux_D65_EV_4	1000Lux_SME_D65_EV_4
	100Lux_4000K_EV_7	100Lux_LED4000K_EV_7
	1000Lux_D65_EV_7	1000Lux_SME_D65_EV_7
	5Lux_2700K_EV_9	5Lux_LED2700K_EV_9

Illuminants - Photo setups

5.1.6	DMC Photo Zoom	
	Generic lighting condition	Lighting condition used in this report
	5Lux_2700K	5Lux_SME_A
	20Lux_2700K	20Lux_SME_A
	100Lux_4000K	100Lux_SME_TL84
	1000Lux_D65	1000Lux_SME_D65

Illuminants - Video setups

5.2.0 Video - Illuminants correspondence tables per setup

Here are the real illuminants (from ALS or MLS) corresponding to the generic illuminants used in the Video part of this report.

5.2.1 DMC **Generic lighting condition** Lighting condition used in this report 1Lux_2700K 1Lux_LED2600K 5Lux_LED2600K 5Lux_2700K 20Lux_LED2600K 20Lux_2700K 100Lux_2700K 100Lux_LED2600K 100Lux_4000K 100Lux_TL84 300Lux_4000K 300Lux_TL84 1000Lux_D65 1000Lux_D65

5.2.2	Deadleaves	
	Generic lighting condition	Lighting condition used in this report
	1Lux_2700K	1Lux_LED2600K
	5Lux_2700K	5Lux_LED2600K
	20Lux_2700K	20Lux_LED2600K
	100Lux_2700K	100Lux_LED2600K
	100Lux_4000K	100Lux_TL84
	300Lux_4000K	300Lux_TL84
	1000Lux_D65	1000Lux_D65

5.2.3	Visual Noise	
	Generic lighting condition	Lighting condition used in this report
	1Lux_2700K	1Lux_LED2600K
	5Lux_2700K	5Lux_LED2600K
	20Lux_2700K	20Lux_LED2600K
	100Lux_2700K	100Lux_LED2600K
	100Lux_4000K	100Lux_TL84
	300Lux_4000K	300Lux_TL84
	1000Lux_D65	1000Lux_D65

AppleiPhone16ProMax **DxOMark** Camera Report Illuminants - Video setups

5.2.4	ColorChecker	
	Generic lighting condition	Lighting condition used in this report
	2700К	LED2600K
	3000K	TL83
	4000K	TL84
	D65	D65

5.2.7	DMC Video Zoom	Video Zoom		
	Generic lighting condition	Lighting condition used in this report		
	20Lux_2700K	20Lux_LED2600K		
	100Lux_2700K	100Lux_LED2600K		
	1000Lux_D65	1000Lux_D65		