ISO 9241-307 TEST REPORT

Product:	*LCD Monitor*
Name/address of the applicant:	*Taiwan BOE Vision-electronic Technology Co., Ltd.* *7F, 2, Rei Kuang Road, Nei Hu, Taipei, Taiwan, R.O.C.*
Name/address of the manufacturer:	*Taiwan BOE Vision-electronic Technology Co., Ltd.* *7F, 2, Rei Kuang Road, Nei Hu, Taipei, Taiwan, R.O.C.*
Trade mark /Brand name:	*AOC*
Model/Type:	*240LM000**
Panel:	*BOE (MV240WUM-N10)*
Electrical data: (EUT)	*100-240Vac, 1.5A, 50/60*
Testing Standards:	*ISO 9241-307:2008(E)*
Test period:	*2016/9/8*
Test results:	*The UUT has shown compliance with ISO 9241-307, 5.2 Emissive flat panel (LCD) display for indoor use requirements.*

Signature	Tested by:	Verified by:
	Name: Lisa Chen	Name: Jeff Chuang
	Date: 2016/9/8	Date: 2016/10/4
	Engineer	Senior Project Manager

Test facility: *Nemko AS Taiwan Branch*
5F, No. 409, Section 2, Tiding Blvd., Neihu, Taipei 114, Taiwan

Test Report

TEST RESULT SUMMARIZATION		
Clause	Requirements	Result
Table 41	Design viewing distance	*N/A**
Table 41	Design viewing direction	*PASS*
Table 43	Gaze and head tilt angles	*N/A*
Table 43	Virtual images	*N/A*
Table 44	Illuminance	*PASS*
Table 44	Display luminance	*PASS*
Table 49	Luminance balance and glare	*N/A**
Table 49	Luminance and contrast adjustment	*PASS*
Table 51	Vibration	*N/A*
Table 51	Wind and rain	*N/A*
Table 51	Excessive temperatures	*PASS*
Table 52	Luminance uniformity	*PASS*
Table 57	Colour non-uniformity	*PASS**
Table 62	Contrast non-uniformity	*PASS*
Table 62	Geometric distortions	*N/A*
Table 62	Screen and faceplate defects	*PASS**
Table 64	Temporal instability (Flicker)	*PASS*
Table 64	Spatial instability (Jitter)	*N/A*
Table 64	Moire effects	*PASS*
Table 64	Other visual artefacts	*PASS*
Table 64	Unwanted reflections	*PASS*
Table 70	Luminance contrast	*PASS*
Table 75	Image polarity	*PASS*
Table 75	Character height	*PASS*
Table 75	Text size constancy	*N/A*
Table 75	Character stroke width	*PASS*
Table 75	Character width to height ratio	*PASS*
Table 75	Character format	*PASS*
Table 75	Between-character spacing	*PASS*
Table 75	Between-word spacing	*PASS*
Table 75	Between-line spacing	*PASS*
Table 76	Luminance coding	*PASS**
Table 79	Blink coding	*N/A*
Table 79	Color coding	*PASS*
Table 81	Geometrical coding	*N/A*
Table 82	Monochrome and multicolour object size	*N/A*
Table 82	Contrast for object legibility	*N/A*
Table 82	colour considerations for graphics	*N/A*
Table 82	Background and surrounding image effects	*N/A*
Table 82	Number of colours	*N/A*
Table 83	Colour gamut and reference white	*PASS*
Table 85	Electro-Optical transfer function (EOTF) and grey scale	*PASS*
Table 91	Rendering of moving images	*PASS*
Table 91	Colour misconvergence	*N/A*
Table 91	Image formation time (IFT)	*PASS*
Table 91	Spatial resolution	*PASS**
Table 91	Raster modulation	*N/A*
Table 91	Fill factor	*PASS*
Table 91	Pixel density	*PASS*

Test Report

Product information and system configuration

System configuration	
Measurements System:	*hp Workstation, XW4200*
Measurements (OS):	*Microsoft Windows XP, Professional*
Test Software:	*SS320 V2.01.128A*
Signal operation System:	*Lab. PC6*
Signal (OS)	*Microsoft Windows XP, Professional*
Signal generator:	*ASUS EN8800 Series (512MB)*
Signal generator driver:	*nv4_disp (6.14.11.6726-nVIDIA Detonator 67.26)*
Signal generator level:	*100%*

Test Equipments

Item	Instrument Name	Manufacture	Model	Due. Date
1	*Display Analysis system*	*Microvision*	*SS-320*	*2017/09*
2	*Display Analysis system*	*Microvision*	*SS-210*	*2017/08*
3	*RTM Modual*	*Microvision*	*SS310-XE*	*2017/09*
4	*Reflectance standard*	*Labsphere*	*SRS-99-020*	*2017/06*
5	*Light Source*	*Microvision*	*Diffuse*	*NCR*
6	*Diffuse Light Source*	*Schott*	*DCR III*	*NCR*

EUT Information	
Adaptor Manufacture/Type:	*Build-In Power*
Adaptor input rating:	*Build-In Power*
Adaptor output rating:	*Build-In Power*
LCD manufacture/type:	*BOE (MV240WUM-N10)*
Inverter manufacture/type:	*Build-In circuit (Manufacture didn't specify)*
Model difference:	*The "*" of the model name can be alphameric or blank.*
Additional information	*Alternative*

Display setting	
Preset_CCT:	*Warm*
Contrast:	*50/100*
Brightness:	*90/100*
Clock:	*Default*
Phase:	*Default*
Signal ports for testing:	*DVI*

Class level summary

Classification:	ISO 9241-307		Corresponding to ISO 13406-2	
	Specified	Test result	Specified	Test result
Viewing direction range class ($Class_{viewing}$):	*Viewing Class III (b)*	*Viewing Class III (b)*	*CLASS III*	*CLASS III*
Chromaticity uniformity class:	*Low*	*Low*	-	-
Pixel fault class ($Class_{Pixel}$):	*CLASS I*	*CLASS I*	*CLASS II*	*CLASS II*
Reflection class,(ClassReflectionPositive):	*CLASS I*	*CLASS I++*	*CLASS I*	*CLASS I*
Reflection class,(ClassReflectionNegative):	*CLASS I*	*CLASS I*	*CLASS I*	*CLASS I*

Note:
- Lower class value is better, for chromaticity uniformity, “High” is best.
- The character added to the viewing class, indicates the viewing cone alternative of table 39.
- Reflection class"+" and "++" (not defined by 9241-307) is given for the more strict illumination condition $L_{REF,EXT}$=300 and 500.
- The Table 57 colour non-uniformity in a)2) (Directional requirement) which apply as “non mandatory requirement” according to AG1 decision.

Test Report

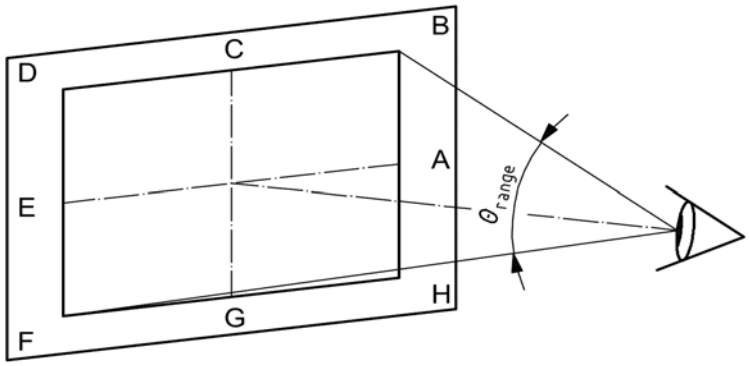
Intended context of use and relevant test parameters

Table 38 - Intended context of use		
User vision		*User with normal or corrected to normal vision of any age, 7 years or older (any literate user).*
Design screen illuminance	Es:	*314.7 lx*
	Screen tilt angle (α):	*75.0°*
Reflection class (Refer to Table 64 for Classification of illumination conditions)		*Class I*
Reflection environment		*Suitable for general office use. (Class I)*
Reference illuminance source		*Large(15°): 200 cd/m² AND Small (1°): 2000 cd/m²*
Illuminant		*Illuminance source D65*
Ambient	Temperature:	*27°C*
Perception of information type		*Artificial information*
Screen size	Diagonal:	*24.0 Inch*
	Horizontal:	*518.4 mm*
	Vertical:	*324.0 mm*
Image type		*Still image and Quasi-static image.*
Design viewing distance	($D_{design,view}$)	*500.0 mm*
Design viewing direction	Type of viewing cone.	*Viewing Class III (b)*
	θ_D	*0.0°*
	Φ_D	*90.0°*
Design viewing direction range	θ_{range}	*62.9°*
Eye and head position		*Fixed installation (rigid).*
Number of users		*Single User*
Display handling		*Stationary, indoor.*

Table 39 - Design viewing direction range (θrange)
Type of viewing cone is: *Viewing Class III (b)*
Viewing cone with a single visual display.

θ_{range} : *62.9°*
$\theta_{range,min}$: *62.9°*
$\theta_{range,max}$: *80.0°*

θ_D : *0.0°*
$\theta_{D,min}$: *0.0°*
$\theta_{D,max}$: *8.6°*



The azimuth angle Φ is 0° ~ 360°.

Table 40 Basic physical attributes of the visual display		
Optical mode of operation		*Emissive*
Mode of observation		*Direct-view*
Diagonal of the active display		*24.0 Inch*
Pixel resolution	Horizontal:	*1920*
	Vertical:	*1200*
Format		*Landscape*

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Compliance assessment

Table 41 Design viewing distance	PASS/FAIL/(N/A:not applicable)/*(with comments)
Pass/Fail criterion based on requirements and intended context of use.	*N/A**

Depending on the type of information shown the visual display shall fulfil the following requirement:
The display is design for: *Artificial information predominantly.*

For Artificial information
The typical design viewing distance is calculated on optimum position for the most important visual display which is within ±15° in the vertical and horizontal direction from the line-of-sight.

Measuring method :	*EK1-ITB 2000:2010 (500 mm)*
Assessment and reporting	*Refer to Table 41, a) Artificial information.*

W_{view}: *518.4* ±0.9mm Aspect ratio: *16:10*
H_{view}: *324.0* ±0.6mm
$D_{design,view}$: *500.0*

Refer to EK1-ITB 2000:2016Annex 4.1, Design,View =500mm.

Table 41 Design viewing direction	PASS/FAIL/(N/A:not applicable)/*(with comments)
Pass/Fail criterion based on requirements and intended context of use.	*PASS*

a) The visual display shall conform to all optical requirements over a relevant range of viewing directions.
b) The design viewing direction (θ_D,Φ_D), as well as the design viewing direction range shall be specified.

Measuring method :	*Intended of use, ISO 9241-305 (P14.1,P14.2)*
Assessment and reporting	*Refer to Table 42*

Table 42 - Step 1 for isotropic/anisotropic optically behaviour.

Φ	0°	0°	30°	60°	90°	120°	150°	180°	210°	240°	270°	300°	330°
θ	0°	40°	40°	40°	40°	40°	40°	40°	40°	40°	40°	40°	40°
Lθ	249.8 ± 12.5	159.8 ± 8.1	147.3 ± 7.5	131.8 ± 6.7	128.6 ± 6.6	133.3 ± 6.8	158.6 ± 8.0	177.7 ± 9.0	162.1 ± 8.2	136.1 ± 6.9	125.6 ± 6.4	124.4 ± 6.4	143.2 ± 7.3

$L_{\perp}$	*249.8*	± 12.5
$L_{\theta,min}$	*124.4*	± 6.4
$L_{\theta}/L_{\perp}$	*0.5*	± 0.1
Optically behaviour:	*Anisotropic*	

Note:
$L_{\theta}/L_{\perp} \leqq 0.8$, the visual display has optically anisotropic behaviour.
$L_{\theta}/L_{\perp} > 0.8$, the visual display has optically isotropic behaviour.
For anisotropic visual displays follow step 3 (lateral and directional optical measurements are performed).

Table 42 - Step 3 Determine the Design Viewing Direction (θ_D,Φ_D). (For anisotropic visual displays)

Lθ (0°~20°)	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°	20°
Azimuth angle set at 90°																					
Azimuth angle set at 270°																					

Maximum luminance at (θ,Φ)	
Reference (θ_D)	*0°*
Reference (ΦD)	*90°*
Predominantly information type.	
Artificial information	

Note:
If the visual display is predominantly designed for artificial information, follow step 4a).
If the visual display is predominantly designed for Reality information, follow step 4b).

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Table 42 - Step 4a, Determine the measurement locations.							
Location	Luminance	CN_Pixel		UL_Pixel		LR_Pixel	
		Col	Row	Col	Row	Col	Row
PL_11	220.0 ± 11.1	66	66	0	0	132	132
PL_22	247.4 ± 12.4	289	199	223	133	355	265
PL_33	251.3 ± 12.6	512	332	446	266	578	398
PL_44	252.6 ± 12.7	736	466	670	400	802	532
PL_55	249.6 ± 12.5	959	599	893	533	1025	665
PL_66	235.7 ± 11.9	1182	732	1116	666	1248	798
PL_77	224.2 ± 11.3	1406	866	1340	800	1472	932
PL_88	224.1 ± 11.3	1629	999	1563	933	1695	1065
PL_99	205.6 ± 10.4	1853	1133	1787	1067	1919	1199
PL_19	196.8 ± 9.9	1853	66	1787	0	1919	132
PL_91	221.9 ± 11.2	66	1133	0	1067	132	1199
PL_EX	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CL	249.6 ± 12.5	959	599	893	533	1025	665
HL	252.6 ± 12.7	736	466	670	400	802	532
LL	196.8 ± 9.9	1853	66	1787	0	1919	132

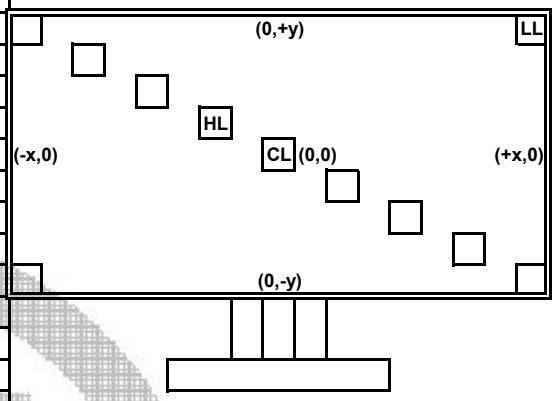

Table 42 - Step 4c,Determine the measurement directions (Artificial information)									
M/D_(n)	M/D_0	M/D_1	M/D_2	M/D_3	M/D_4	M/D_5	M/D_6	M/D_7	N/A
θ	0.0°	31.4°	31.4°	31.4°	31.4°	31.4°	31.4°	0.0°	N/A
Φ	Any	212.0°	151.0°	270.0°	90.0°	29.0°	328.0°	90.0°	N/A

Table 43 Gaze and head tilt angles	PASS/FAIL/(N/A:not applicable)/*(with comments)	N/A

Table 43 Virtual images	PASS/FAIL/(N/A:not applicable)/*(with comments)	N/A

Table 44 Illuminance		PASS/FAIL/(N/A:not applicable)/*(with comments)
Pass/Fail criterion based on requirements and intended context of use.		PASS
The supplier shall specify the maximum design screen illuminance, Es, as well as the illuminant.		
Measuring method :	Intended context of use	
Assessment and reporting	Refer to following information	

At indoor locations of : *Office work*

Reference illuminance: *Vertical 250 lx + 250 lx × cos(α) in offices, where α is the screen tilt angle.*

Screen tilt angle: *75.0°*

Reference illuminant: *Illuminance source D65*

Reference illuminance: *314.7 lx*

Es (used in report): *314.7 lx*

Reference illuminant:

CIE 1931 (x,y) x: *0.313*

y: *0.329*

CIE 1976 (u',v') u': *0.198*

v': *0.468*

Test Report

Compliance assessment

Table 44 Display luminance	PASS/FAIL/(N/A:not applicable)/*(with comments)
Pass/Fail criterion based on requirements and intended context of use.	*PASS*
The visual display shall fulfil the following requirements: Artificial information 1) Under darkroom conditions, the visual display shall have a minimum display luminance of 20 cd/m² over all relevant viewing directions (see design viewing direction). 2) Under darkroom conditions, the visual display should have a minimum display luminance of 150 cd/m² over all relevant viewing directions (see design viewing direction and ISO 9241-303). Requirement level apply: *General requirement*	
Measuring method :	*ISO 9241-305 P12.5, M12.1*
Assessment and reporting	*Refer to Table 46*

Table 46-Display luminance (cd/m^2)	Minimum display luminance level							*20*
M/D(n)	*M/D_0*	*M/D_1*	*M/D_2*	*M/D_3*	*M/D_4*	*M/D_5*	*M/D_6*	*M/D_7*
CL	*250.1* ± 12.6	*234.3* ± 11.8	*235.0* ± 11.8	*208.6* ± 10.5	*210.8* ± 10.6	*212.0* ± 10.7	*210.0* ± 10.6	*249.2* ± 12.5
HL	*252.9* ± 12.7	*237.2* ± 11.9	*238.3* ± 12.0	*210.5* ± 10.6	*213.7* ± 10.8	*214.3* ± 10.8	*212.1* ± 10.7	*252.0* ± 12.7
LL	*196.5* ± 9.9	*186.1* ± 9.4	*188.0* ± 9.5	*163.0* ± 8.3	*169.4* ± 8.6	*168.2* ± 8.5	*163.3* ± 8.3	*197.2* ± 9.9

Table 49 Luminance balance and glare	PASS/FAIL/(N/A:not applicable)/*(with comments)
Pass/Fail criterion based on requirements and intended context of use.	*N/A**
a) In work environments, the luminance of task areas, $L_{task,area}$, that are frequently viewed in sequence while using the visual display (document, covers, etc.) should be between $0,1 \times L_{task,area} \leqq L_{Ea,HS} \leqq 10 \times L_{task,area}$ where $L_{Ea,HS}$ is the area average luminance of the visual display. b) For prolonged use in work environments, check that the design of the visual display screen and surrounding area of the product housing do not produce disturbing glare in the prevailing environmental lighting conditions. *Table 49 b) ISO 9241-300 didn't defined the suitable requirement level.	
Measuring method :	*ISO 9241-305*
Assessment and reporting	*a) Not applicable. b) No suitable gloss requirement level publish yet.*

Table 49 Luminance and contrast adjustment	PASS/FAIL/(N/A:not applicable)/*(with comments)
Pass/Fail criterion based on requirements and intended context of use.	*PASS*
The visual display shall fulfil the following requirements. 1) The display luminance (luminance of the low and/or high state) shall be adjustable manually or automatically to the ambient illumination conditions. 2) The display luminance of the low state should be adjustable. 3) The display luminance of the high state shall be adjustable. 4) The luminance of the low and high states should be adjustable independently. 5) Adjustment of the display luminance (luminance of the low and/or high state) should not affect the electro-optical transfer function (EOTF) or the gamma value.	
Measuring method :	*ISO 9241-305 5.1.2.5, P 14.1*
Assessment and reporting	*Refer to Table 50*

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Table 50 - Assessment and reporting for luminance and contrast adjustment			
1)	Step 1 Report the available controls for manual or automatic adjustment. Step 2 Describe the effect of the controls based on suppliers information. Step 3 Report the resulting values for passed or failed.		
	Luminance of High state and Low State adjustable manually to ambient illumination condition.		
2)	Step 1 Adjust the control responsible for the display luminance of the high state to maximum. Step 2 Adjust the control responsible for the display luminance of the low state between minimum and maximum. Measure the display luminance, for each adjustment setting.		
	High state (Maximum)	Low State (Minimum)	*0.3* ± 0.2
		Low State (Maximum)	*0.3* ± 0.2
3)	Step 1 Adjust the control responsible for the display luminance of the Low state to maximum. Step 2 Adjust the control responsible for the display luminance of the High state between minimum and maximum. Measure the display luminance, for each adjustment setting.		
	Low state (Maximum)	High State (Minimum)	*0.1* ± 0.2
		High State (Maximum)	*0.3* ± 0.2
4,5)	Step 1 Display a full screen grey scale (equidistantly spaced in 5 % steps). Step 2 Adjust the control responsible for the display luminance of the high state to the middle position. Adjust the control responsible for the display luminance of the low state between minimum and maximum. Perform a visual inspection of the whole grey scale as well as the 0 %, 5 % and 10 % areas of the grey scale. Step 3 Adjust the control responsible for the display luminance of the low state to the middle position. Adjust the control responsible for the display luminance of the high state between minimum and maximum. Perform a visual inspection of the whole grey scale as well as the 90 %, 95 % and 100 % areas of the grey scale. Step 4 Observe the visual display for independency between adjustments of the display luminance of the low and high state.		
	High state and Low state adjustment setting	High State (Brightness)	*90/100*
		Low State (Contrast)	*50/100*

Table 51 Vibration	PASS/FAIL/(N/A:not applicable)/*(with comments)	*N/A*

Table 51 Wind and rain	PASS/FAIL/(N/A:not applicable)/*(with comments)	*N/A*

Table 51 Excessive temperatures		PASS/FAIL/(N/A:not applicable)/*(with comments)
Pass/Fail criterion based on requirements and intended context of use.		*PASS*
When operation of visual display devices is required in environments where temperatures are approaching 0 °C or +40 °C, users should take equipment and personal precautions to ensure that they are able to complete their tasks satisfactorily and safely.		
Measuring method :	*ISO 9241-305*	
Assessment and reporting	*Supplier specification or intended context of use.*	
The safety operation temperature is:	*40°C*	

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Table 52 Luminance uniformity	PASS/FAIL/(N/A:not applicable)/*(with comments)
Pass/Fail criterion based on requirements and intended context of use.	PASS

The visual display shall fulfil the following requirements.

Separate distance in degree	Lateral criterion	Directional criterion
1.1° to < 2.0°	1.3	1.7
≧ 2.0° to < 4.0°	1.4	1.7
≧ 4.0° to < 5.0°	1.5	1.7
≧ 5.0° to < 7.0°	1.6	1.7
≧ 7.0°	1.7	1.7

Criterion level (General requirement/Strictly requirement) selected by: *General requirement*

Measuring method :	*ISO 9241-305 P14.1, P14.2*
Assessment and reporting	*Refer to Table 54 b) 1), Table 54 b) 2)*

Table 54_a)1)2)-Lateral measurement, Artificial/Anisotropic

M/D(n)		M/D_7	Dis(°)	500	Min.	Pos.	L-Ratio	Result
CL	100%	250.8 ± 12.6	CL-HL	8.4°	1.7	CL-HL	1.01 ± 0.07	PASS
	50%	52.0 ± 2.8					1.02 ± 0.08	PASS
HL	100%	253.0 ± 12.7	CL-LL	31.3°	1.7	CL-LL	1.26 ± 0.09	PASS
	50%	53.1 ± 2.8					1.23 ± 0.09	PASS
LL	100%	198.7 ± 10.0	HL-LL	35.6°	1.7	HL-LL	1.27 ± 0.09	N/A*
	50%	42.2 ± 2.3					1.26 ± 0.10	N/A*

*Locations (HL-LL), is for reference purpose only, it is not considered as standard requirement.

Table 54_a)3)-Directional measurement, Artificial/Anisotropic

Azimuth	R/G/B Level	Result for full θ_{range}	Max_L	Max_L at θ_{range}	Min_L	Min_L at θ_{range}	Max_L ratio
0°	100%	PASS	251.2 ± 12.6	0°	212.3 ± 10.7	24°	1.18 ± 0.08
	50%	PASS	51.1 ± 2.7	0°	45.2 ± 2.4	24°	1.13 ± 0.09
90°	100%	PASS	249.8 ± 12.5	0°	209.1 ± 10.5	24°	1.19 ± 0.08
	50%	PASS	51.9 ± 2.8	0°	42.2 ± 2.3	24°	1.23 ± 0.09
180°	100%	PASS	255.0 ± 12.8	10°	241.3 ± 12.1	24°	1.06 ± 0.08
	50%	PASS	56.6 ± 3.0	19°	52.5 ± 2.8	0°	1.08 ± 0.08
270°	100%	PASS	250.8 ± 12.6	0°	206.3 ± 10.4	24°	1.22 ± 0.09
	50%	PASS	52.8 ± 2.8	0°	41.7 ± 2.3	24°	1.27 ± 0.10

Evaluate the directional uniformity criterion. If the requirement is not fulfilled within θrange,specify the maximum inclination angle at which the maximum luminance ratio is reached.

Table 57 Colour non-uniformity	PASS/FAIL/(N/A:not applicable)/*(with comments)
Pass/Fail criterion based on requirements and intended context of use.	PASS*

The display shall fulfill following requirements for colour uniformity.

a) Artificial information

1) Lateral uniformity criterion: Color uniformity (Δu',v') criterion: *0.03*

For an intended uniform colour appearance, the chromaticity uniformity difference, Δu',v', of a colour at different locations on the visual display shall not exceed the following limits:

Δu',v' = 0.02 for D_{active} / $D_{design,view}$ <0.75 Δu',v' = 0.03 for D_{active} / $D_{design,view}$ ≧0.75

2) Directional uniformity criterion:

The visual display shall have a sufficient chromaticity uniformity over all relevant viewing directions (see design viewing direction). The maximum chromaticity uniformity difference, Δu',v', of a colour shall not exceed the above-mentioned limits.

"*" indicate the "non-mandatory requirement" apply for Table 57 a)2), which refer to AG1 decision.

Measuring method :	*ISO 9241-305 P19.2, P19.3*
Assessment and reporting	*Refer to Table 59*

Test Report

Compliance assessment

Color RGB definition, Application Name, Requirement Levels.								
No.	Levels	PC Name	Word of MS	Excel of MS	Colors	R	G	B
0	N/A	Black	Black	Black		0	0	0
1	3	Light Red	Red	Red		255	0	0
2	3	Light Green	Green	Green		0	255	0
3	3	Light Blue	Blue	Blue		0	0	255
4	2	Bright White	White	White		255	255	255
5	2	Light Cyan	Cyan	Cyan		0	255	255
6	2	Light Magenta	Magenta	Magenta		255	0	255
7	2	Light Yellow	Yellow	Yellow		255	255	0
8	2	White	Light Grey	Light Grey		192	192	192
9	1	Red	Dark Red	Dark Red		128	0	0
10	1	Green	Dark Green	Dark Green		0	128	0
11	1	Blue	Dark Blue	Dark Blue		0	0	128
12	1	Gray	Dark Grey	Grey		128	128	128
13	1	Cyan	Dark Cyan	Dark Cyan		0	128	128
14	1	Magenta	Dark Magenta	Purple		128	0	128
15	1	Yellow	Dark Yellow	Light Brown		128	128	0

Table 59 - Assessment and reporting for colour non-uniformity -Artificial information-Anisotropic Display

Depending on the technology, the visual display may not fulfil the requirement for all displayed colours. The following differentiation is made.

High class chromaticity uniformity
Combinations: R,G,B = 100%, Combination: R=G=B=75% and Combinations R,G,B=50%.

Medium class chromaticity uniformity
Combinations: R,G,B = 100% and Combination: R=G=B=75%.

Low class chromaticity uniformity
Combinations: R,G,B = 100%.

Color uniformity (Δu'v') for Lateral						
Max_Δu'v' Position		Max_Δu'v'	Max_Δu'v' Color (R/G/B)			Result
From	To		R	G	B	
HL-7	LL-7	0.006 ± 0.019	255	0	255	PASS

Color uniformity (Δu',v') for Artificial/Anisotropic, Directional requirement									
Requirement type		Max_Δu'v'	Max_Δu'v' Color (R/G/B)			Max_Δu'v' Direction		Best Class could meet	Result
			R	G	B	From	To		
Directional	CL	0.019 ± 0.019	128	0	128	CL-1	CL-4	High	PASS
	HL	0.018 ± 0.019	128	0	128	HL-1	HL-4	High	PASS
	LL	0.016 ± 0.019	128	0	128	LL-1	LL-4	High	PASS
Product specify chromaticity uniformity class:		Low class chromaticity uniformity						Result	PASS

*Also refer to following pages for Lateral/Directional measurement result.

Test Report

Compliance assessment

Table 59 - Color reading (u',v') and Color uniformity (Δu'v') for Lateral requirement									
Locations	CL-7		HL-7		LL-7		HL-LL	CL-HL	CL-LL
Color (n)	u'	v'	u'	v'	u'	v'	Δu',v'	Δu',v'	Δu',v'
Color 1	0.438 ± 0.019	0.525 ± 0.021	0.439 ± 0.019	0.525 ± 0.021	0.438 ± 0.019	0.525 ± 0.021	0.001 ± 0.027	0.001 ± 0.027	0.001 ± 0.027
Color 2	0.122 ± 0.006	0.567 ± 0.023	0.122 ± 0.006	0.567 ± 0.023	0.122 ± 0.006	0.567 ± 0.023	0.001 ± 0.009	0.001 ± 0.031	0.001 ± 0.014
Color 3	0.186 ± 0.009	0.137 ± 0.006	0.187 ± 0.009	0.136 ± 0.006	0.185 ± 0.009	0.138 ± 0.006	0.002 ± 0.011	0.001 ± 0.011	0.002 ± 0.011
Color 4	0.197 ± 0.009	0.460 ± 0.019	0.197 ± 0.009	0.459 ± 0.019	0.197 ± 0.009	0.462 ± 0.019	0.004 ± 0.026	0.002 ± 0.027	0.002 ± 0.026
Color 5	0.140 ± 0.007	0.444 ± 0.018	0.140 ± 0.007	0.443 ± 0.018	0.140 ± 0.007	0.447 ± 0.018	0.005 ± 0.026	0.002 ± 0.025	0.003 ± 0.026
Color 6	0.301 ± 0.013	0.313 ± 0.013	0.301 ± 0.013	0.311 ± 0.013	0.301 ± 0.013	0.317 ± 0.013	0.006 ± 0.019	0.003 ± 0.018	0.004 ± 0.019
Color 7	0.201 ± 0.009	0.557 ± 0.023	0.201 ± 0.009	0.557 ± 0.023	0.200 ± 0.009	0.557 ± 0.023	0.001 ± 0.014	0.001 ± 0.016	0.001 ± 0.014
Color 8	0.196 ± 0.009	0.462 ± 0.019	0.196 ± 0.009	0.462 ± 0.019	0.196 ± 0.009	0.464 ± 0.019	0.003 ± 0.027	0.001 ± 0.027	0.002 ± 0.027
Color 9	0.433 ± 0.019	0.523 ± 0.021	0.433 ± 0.019	0.523 ± 0.021	0.433 ± 0.019	0.523 ± 0.021	0.001 ± 0.026	0.001 ± 0.027	0.001 ± 0.026
Color 10	0.123 ± 0.006	0.566 ± 0.023	0.123 ± 0.006	0.566 ± 0.023	0.124 ± 0.006	0.566 ± 0.023	0.001 ± 0.010	0.001 ± 0.032	0.001 ± 0.010
Color 11	0.184 ± 0.009	0.149 ± 0.007	0.184 ± 0.009	0.149 ± 0.007	0.183 ± 0.009	0.154 ± 0.007	0.005 ± 0.010	0.001 ± 0.010	0.005 ± 0.010
Color 12	0.195 ± 0.009	0.464 ± 0.019	0.195 ± 0.009	0.463 ± 0.019	0.195 ± 0.009	0.466 ± 0.019	0.003 ± 0.027	0.001 ± 0.027	0.002 ± 0.027
Color 13	0.140 ± 0.007	0.448 ± 0.018	0.140 ± 0.007	0.447 ± 0.018	0.140 ± 0.007	0.451 ± 0.018	0.004 ± 0.026	0.002 ± 0.025	0.003 ± 0.026
Color 14	0.299 ± 0.013	0.319 ± 0.013	0.299 ± 0.013	0.317 ± 0.013	0.298 ± 0.013	0.321 ± 0.013	0.004 ± 0.019	0.003 ± 0.019	0.002 ± 0.019
Color 15	0.197 ± 0.009	0.557 ± 0.023	0.197 ± 0.009	0.557 ± 0.023	0.197 ± 0.009	0.557 ± 0.023	0.001 ± 0.014	0.001 ± 0.018	0.001 ± 0.032

Table 59 - Directional measurement

Color values (u',v'), for location CL - continue Table 59/Color uniformity, Directional requirement.

CL1~7	CL-1		CL-2		CL-3		CL-4		CL-5		CL-6		CL-7	
n=	u'	v'	u'	v'	u'	v'	u'	v'	u'	v'	u'	v'	u'	v'
Color1	0.438 ± 0.019	0.525 ± 0.021	0.438 ± 0.019	0.525 ± 0.021	0.440 ± 0.019	0.526 ± 0.021	0.440 ± 0.019	0.526 ± 0.021	0.440 ± 0.019	0.526 ± 0.021	0.440 ± 0.019	0.525 ± 0.021	0.438 ± 0.019	0.525 ± 0.021
Color2	0.121 ± 0.006	0.567 ± 0.023	0.121 ± 0.006	0.567 ± 0.023	0.121 ± 0.006	0.567 ± 0.023	0.120 ± 0.006	0.568 ± 0.023	0.121 ± 0.006	0.567 ± 0.023	0.121 ± 0.006	0.567 ± 0.023	0.122 ± 0.006	0.567 ± 0.023
Color3	0.187 ± 0.009	0.136 ± 0.006	0.187 ± 0.009	0.138 ± 0.006	0.187 ± 0.009	0.136 ± 0.006	0.187 ± 0.009	0.136 ± 0.006	0.186 ± 0.009	0.135 ± 0.006	0.186 ± 0.009	0.135 ± 0.006	0.186 ± 0.009	0.137 ± 0.006
Color4	0.198 ± 0.009	0.461 ± 0.019	0.198 ± 0.009	0.461 ± 0.019	0.197 ± 0.009	0.462 ± 0.019	0.197 ± 0.009	0.462 ± 0.019	0.198 ± 0.009	0.463 ± 0.019	0.198 ± 0.009	0.463 ± 0.019	0.197 ± 0.009	0.460 ± 0.019
Color5	0.140 ± 0.007	0.445 ± 0.018	0.139 ± 0.007	0.446 ± 0.018	0.139 ± 0.007	0.446 ± 0.018	0.139 ± 0.007	0.446 ± 0.018	0.139 ± 0.007	0.448 ± 0.018	0.139 ± 0.007	0.448 ± 0.018	0.140 ± 0.007	0.444 ± 0.018
Color6	0.303 ± 0.013	0.314 ± 0.013	0.303 ± 0.013	0.315 ± 0.013	0.304 ± 0.014	0.315 ± 0.013	0.304 ± 0.014	0.315 ± 0.013	0.305 ± 0.014	0.318 ± 0.013	0.305 ± 0.014	0.318 ± 0.013	0.301 ± 0.013	0.313 ± 0.013
Color7	0.201 ± 0.009	0.557 ± 0.023	0.201 ± 0.009	0.557 ± 0.023	0.201 ± 0.009	0.557 ± 0.023	0.201 ± 0.009	0.557 ± 0.023	0.201 ± 0.009	0.557 ± 0.023	0.201 ± 0.009	0.557 ± 0.023	0.201 ± 0.009	0.557 ± 0.023
Color8	0.196 ± 0.009	0.458 ± 0.019	0.195 ± 0.009	0.459 ± 0.019	0.197 ± 0.009	0.466 ± 0.019	0.197 ± 0.009	0.466 ± 0.019	0.197 ± 0.009	0.466 ± 0.019	0.197 ± 0.009	0.467 ± 0.019	0.196 ± 0.009	0.462 ± 0.019
Color9	0.422 ± 0.018	0.521 ± 0.021	0.420 ± 0.018	0.520 ± 0.021	0.432 ± 0.019	0.523 ± 0.021	0.432 ± 0.019	0.523 ± 0.021	0.431 ± 0.018	0.521 ± 0.021	0.428 ± 0.018	0.519 ± 0.021	0.434 ± 0.019	0.523 ± 0.021
Color10	0.123 ± 0.006	0.565 ± 0.023	0.123 ± 0.006	0.564 ± 0.023	0.124 ± 0.006	0.567 ± 0.023	0.123 ± 0.006	0.566 ± 0.023	0.123 ± 0.006	0.566 ± 0.023	0.123 ± 0.006	0.565 ± 0.023	0.123 ± 0.006	0.566 ± 0.023
Color11	0.188 ± 0.009	0.157 ± 0.007	0.186 ± 0.009	0.159 ± 0.007	0.185 ± 0.009	0.158 ± 0.007	0.184 ± 0.009	0.157 ± 0.007	0.184 ± 0.009	0.153 ± 0.007	0.184 ± 0.009	0.157 ± 0.007	0.184 ± 0.009	0.149 ± 0.007
Color12	0.194 ± 0.009	0.458 ± 0.019	0.194 ± 0.009	0.460 ± 0.019	0.196 ± 0.009	0.469 ± 0.019	0.196 ± 0.009	0.469 ± 0.019	0.195 ± 0.009	0.467 ± 0.019	0.195 ± 0.009	0.468 ± 0.019	0.195 ± 0.009	0.464 ± 0.019
Color13	0.141 ± 0.007	0.442 ± 0.018	0.141 ± 0.007	0.443 ± 0.018	0.140 ± 0.007	0.454 ± 0.019	0.139 ± 0.007	0.454 ± 0.019	0.139 ± 0.007	0.451 ± 0.018	0.139 ± 0.007	0.453 ± 0.019	0.140 ± 0.007	0.448 ± 0.018
Color14	0.294 ± 0.013	0.311 ± 0.013	0.295 ± 0.013	0.314 ± 0.013	0.303 ± 0.013	0.327 ± 0.014	0.303 ± 0.013	0.327 ± 0.014	0.301 ± 0.013	0.323 ± 0.013	0.302 ± 0.013	0.326 ± 0.014	0.299 ± 0.013	0.319 ± 0.013
Color15	0.195 ± 0.009	0.556 ± 0.023	0.195 ± 0.009	0.556 ± 0.023	0.198 ± 0.009	0.558 ± 0.023	0.198 ± 0.009	0.557 ± 0.023	0.197 ± 0.009	0.557 ± 0.023	0.197 ± 0.009	0.556 ± 0.023	0.197 ± 0.009	0.557 ± 0.023

Color uniformity result (Δu',v'), for location CL - continue Table 59/Color uniformity, Directional requirement .

n=	CL1-2	CL1-3	CL1-4	CL1-5	CL1-6	CL1-7	CL2-3	CL2-4	CL2-5	CL2-6	CL2-7	CL3-4	CL3-5	CL3-6	CL3-7	CL4-5	CL4-6	CL4-7	CL5-6	CL5-7	CL6-7
C1	0.001 ± 0.027	0.002 ± 0.027	0.002 ± 0.027	0.003 ± 0.027	0.002 ± 0.027	0.001 ± 0.027	0.002 ± 0.027	0.003 ± 0.027	0.003 ± 0.027	0.002 ± 0.027	0.001 ± 0.027	0.000 ± 0.028	0.000 ± 0.027	0.000 ± 0.030	0.002 ± 0.027	0.000 ± 0.030	0.001 ± 0.029	0.002 ± 0.027	0.001 ± 0.028	0.002 ± 0.027	0.002 ± 0.027
C2	0.001 ± 0.030	0.001 ± 0.027	0.002 ± 0.026	0.001 ± 0.032	0.001 ± 0.030	0.001 ± 0.015	0.001 ± 0.023	0.002 ± 0.024	0.001 ± 0.031	0.001 ± 0.028	0.001 ± 0.019	0.001 ± 0.025	0.001 ± 0.017	0.001 ± 0.031	0.001 ± 0.021	0.001 ± 0.019	0.001 ± 0.021	0.002 ± 0.023	0.001 ± 0.012	0.001 ± 0.025	0.001 ± 0.023
C3	0.002 ± 0.009	0.001 ± 0.011	0.001 ± 0.009	0.002 ± 0.011	0.002 ± 0.012	0.002 ± 0.012	0.003 ± 0.009	0.003 ± 0.009	0.004 ± 0.009	0.003 ± 0.009	0.002 ± 0.010	0.000 ± 0.009	0.001 ± 0.011	0.002 ± 0.012	0.002 ± 0.010	0.001 ± 0.012	0.001 ± 0.013	0.002 ± 0.010	0.000 ± 0.009	0.002 ± 0.009	0.002 ± 0.009
C4	0.001 ± 0.027	0.001 ± 0.027	0.002 ± 0.026	0.003 ± 0.027	0.003 ± 0.027	0.001 ± 0.026	0.000 ± 0.025	0.001 ± 0.025	0.002 ± 0.027	0.002 ± 0.027	0.002 ± 0.027	0.000 ± 0.025	0.001 ± 0.026	0.002 ± 0.026	0.002 ± 0.027	0.002 ± 0.026	0.002 ± 0.026	0.003 ± 0.027	0.000 ± 0.027	0.004 ± 0.027	0.004 ± 0.027
C5	0.001 ± 0.025	0.001 ± 0.025	0.001 ± 0.025	0.003 ± 0.025	0.004 ± 0.026	0.002 ± 0.024	0.000 ± 0.025	0.001 ± 0.025	0.003 ± 0.025	0.002 ± 0.026	0.002 ± 0.024	0.000 ± 0.025	0.002 ± 0.025	0.002 ± 0.026	0.002 ± 0.024	0.002 ± 0.025	0.002 ± 0.026	0.003 ± 0.024	0.000 ± 0.016	0.005 ± 0.025	0.005 ± 0.025
C6	0.001 ± 0.019	0.002 ± 0.019	0.002 ± 0.019	0.004 ± 0.019	0.005 ± 0.019	0.003 ± 0.019	0.001 ± 0.019	0.001 ± 0.019	0.004 ± 0.019	0.004 ± 0.019	0.003 ± 0.019	0.000 ± 0.019	0.003 ± 0.019	0.003 ± 0.019	0.003 ± 0.019	0.002 ± 0.019	0.003 ± 0.019	0.004 ± 0.019	0.001 ± 0.019	0.006 ± 0.019	0.006 ± 0.019
C7	0.001 ± 0.014	0.001 ± 0.032	0.000 ± 0.014	0.001 ± 0.013	0.001 ± 0.015	0.001 ± 0.030	0.000 ± 0.022	0.000 ± 0.028	0.001 ± 0.014	0.001 ± 0.017	0.001 ± 0.031	0.000 ± 0.019	0.001 ± 0.014	0.001 ± 0.013	0.001 ± 0.030	0.000 ± 0.013	0.000 ± 0.016	0.001 ± 0.032	0.001 ± 0.016	0.001 ± 0.030	0.001 ± 0.032
C8	0.001 ± 0.027	0.008 ± 0.026	0.009 ± 0.027	0.008 ± 0.027	0.009 ± 0.027	0.005 ± 0.026	0.007 ± 0.026	0.008 ± 0.026	0.007 ± 0.026	0.008 ± 0.027	0.003 ± 0.026	0.001 ± 0.027	0.000 ± 0.024	0.001 ± 0.027	0.004 ± 0.027	0.001 ± 0.026	0.000 ± 0.019	0.004 ± 0.027	0.001 ± 0.027	0.003 ± 0.027	0.004 ± 0.027
C9	0.003 ± 0.026	0.011 ± 0.026	0.011 ± 0.026	0.009 ± 0.026	0.006 ± 0.026	0.012 ± 0.026	0.013 ± 0.026	0.013 ± 0.026	0.012 ± 0.026	0.008 ± 0.026	0.015 ± 0.026	0.001 ± 0.030	0.003 ± 0.030	0.006 ± 0.028	0.002 ± 0.026	0.003 ± 0.029	0.006 ± 0.028	0.002 ± 0.026	0.004 ± 0.027	0.004 ± 0.027	0.008 ± 0.027
C10	0.001 ± 0.026	0.002 ± 0.030	0.002 ± 0.032	0.001 ± 0.032	0.001 ± 0.029	0.002 ± 0.030	0.002 ± 0.032	0.002 ± 0.032	0.002 ± 0.032	0.001 ± 0.032	0.002 ± 0.032	0.000 ± 0.011	0.001 ± 0.025	0.001 ± 0.031	0.000 ± 0.032	0.001 ± 0.030	0.001 ± 0.032	0.001 ± 0.031	0.001 ± 0.031	0.001 ± 0.013	0.001 ± 0.030
C11	0.002 ± 0.010	0.003 ± 0.012	0.004 ± 0.013	0.005 ± 0.011	0.005 ± 0.013	0.008 ± 0.010	0.003 ± 0.012	0.003 ± 0.012	0.006 ± 0.010	0.004 ± 0.012	0.009 ± 0.010	0.001 ± 0.012	0.004 ± 0.010	0.001 ± 0.012	0.008 ± 0.010	0.004 ± 0.010	0.000 ± 0.012	0.007 ± 0.010	0.004 ± 0.010	0.004 ± 0.010	0.007 ± 0.010
C12	0.001 ± 0.027	0.010 ± 0.027	0.011 ± 0.027	0.009 ± 0.027	0.010 ± 0.027	0.006 ± 0.026	0.009 ± 0.026	0.010 ± 0.027	0.008 ± 0.027	0.009 ± 0.027	0.004 ± 0.026	0.000 ± 0.026	0.002 ± 0.026	0.001 ± 0.021	0.005 ± 0.027	0.002 ± 0.027	0.001 ± 0.025	0.005 ± 0.027	0.001 ± 0.027	0.003 ± 0.027	0.004 ± 0.027
C13	0.002 ± 0.026	0.012 ± 0.026	0.013 ± 0.026	0.010 ± 0.026	0.012 ± 0.026	0.007 ± 0.025	0.010 ± 0.026	0.011 ± 0.026	0.009 ± 0.025	0.010 ± 0.026	0.005 ± 0.025	0.001 ± 0.024	0.003 ± 0.026	0.001 ± 0.026	0.006 ± 0.026	0.003 ± 0.026	0.001 ± 0.026	0.006 ± 0.026	0.002 ± 0.026	0.003 ± 0.026	0.005 ± 0.026
C14	0.003 ± 0.018	0.018 ± 0.019	0.019 ± 0.019	0.014 ± 0.019	0.017 ± 0.019	0.009 ± 0.019	0.015 ± 0.019	0.016 ± 0.019	0.012 ± 0.019	0.013 ± 0.019	0.006 ± 0.019	0.001 ± 0.019	0.003 ± 0.019	0.001 ± 0.019	0.009 ± 0.019	0.004 ± 0.019	0.002 ± 0.019	0.010 ± 0.019	0.002 ± 0.019	0.005 ± 0.019	0.008 ± 0.019
C15	0.000 ± 0.026	0.003 ± 0.016	0.003 ± 0.016	0.002 ± 0.015	0.003 ± 0.013	0.003 ± 0.014	0.003 ± 0.019	0.003 ± 0.020	0.003 ± 0.019	0.002 ± 0.014	0.002 ± 0.018	0.000 ± 0.019	0.001 ± 0.021	0.001 ± 0.031	0.001 ± 0.023	0.001 ± 0.021	0.001 ± 0.030	0.001 ± 0.023	0.001 ± 0.031	0.000 ± 0.028	0.001 ± 0.028

Table 59 - Directional measurement

Color values (u',v'), for location HL - continue Table 59/Color uniformity, Directional requirement.

HL1~7	HL-1		HL-2		HL-3		HL-4		HL-5		HL-6		HL-7	
n=	u'	v'	u'	v'	u'	v'	u'	v'	u'	v'	u'	v'	u'	v'
Color1	0.438 ± 0.019	0.525 ± 0.021	0.437 ± 0.019	0.525 ± 0.021	0.440 ± 0.019	0.526 ± 0.021	0.440 ± 0.019	0.526 ± 0.021	0.440 ± 0.019	0.526 ± 0.021	0.439 ± 0.019	0.525 ± 0.021	0.439 ± 0.019	0.525 ± 0.021
Color2	0.121 ± 0.006	0.567 ± 0.023	0.121 ± 0.006	0.567 ± 0.023	0.121 ± 0.006	0.567 ± 0.023	0.121 ± 0.006	0.567 ± 0.023	0.121 ± 0.006	0.567 ± 0.023	0.121 ± 0.006	0.567 ± 0.023	0.122 ± 0.006	0.567 ± 0.023
Color3	0.188 ± 0.009	0.136 ± 0.006	0.188 ± 0.009	0.137 ± 0.006	0.187 ± 0.009	0.135 ± 0.006	0.187 ± 0.009	0.133 ± 0.006	0.187 ± 0.009	0.136 ± 0.006	0.186 ± 0.009	0.135 ± 0.006	0.187 ± 0.009	0.136 ± 0.006
Color4	0.197 ± 0.009	0.460 ± 0.019	0.197 ± 0.009	0.460 ± 0.019	0.197 ± 0.009	0.461 ± 0.019	0.197 ± 0.009	0.461 ± 0.019	0.198 ± 0.009	0.462 ± 0.019	0.197 ± 0.009	0.463 ± 0.019	0.197 ± 0.009	0.459 ± 0.019
Color5	0.140 ± 0.007	0.444 ± 0.018	0.140 ± 0.007	0.445 ± 0.018	0.139 ± 0.007	0.445 ± 0.018	0.139 ± 0.007	0.445 ± 0.018	0.139 ± 0.007	0.447 ± 0.018	0.139 ± 0.007	0.447 ± 0.018	0.140 ± 0.007	0.443 ± 0.018
Color6	0.303 ± 0.013	0.312 ± 0.013	0.303 ± 0.013	0.314 ± 0.013	0.304 ± 0.014	0.313 ± 0.013	0.303 ± 0.013	0.313 ± 0.013	0.304 ± 0.014	0.316 ± 0.013	0.304 ± 0.014	0.316 ± 0.013	0.301 ± 0.013	0.311 ± 0.013
Color7	0.200 ± 0.009	0.557 ± 0.023	0.201 ± 0.009	0.557 ± 0.023	0.200 ± 0.009	0.557 ± 0.023	0.200 ± 0.009	0.557 ± 0.023	0.201 ± 0.009	0.557 ± 0.023	0.201 ± 0.009	0.557 ± 0.023	0.201 ± 0.009	0.557 ± 0.023
Color8	0.195 ± 0.009	0.457 ± 0.019	0.195 ± 0.009	0.459 ± 0.019	0.196 ± 0.009	0.465 ± 0.019	0.196 ± 0.009	0.466 ± 0.019	0.196 ± 0.009	0.465 ± 0.019	0.196 ± 0.009	0.466 ± 0.019	0.196 ± 0.009	0.462 ± 0.019
Color9	0.424 ± 0.018	0.521 ± 0.021	0.420 ± 0.018	0.519 ± 0.021	0.431 ± 0.018	0.523 ± 0.021	0.431 ± 0.019	0.523 ± 0.021	0.431 ± 0.018	0.521 ± 0.021	0.428 ± 0.018	0.519 ± 0.021	0.433 ± 0.019	0.523 ± 0.021
Color10	0.123 ± 0.006	0.565 ± 0.023	0.123 ± 0.006	0.564 ± 0.023	0.124 ± 0.006	0.567 ± 0.023	0.123 ± 0.006	0.566 ± 0.023	0.123 ± 0.006	0.566 ± 0.023	0.123 ± 0.006	0.565 ± 0.023	0.123 ± 0.006	0.566 ± 0.023
Color11	0.188 ± 0.009	0.156 ± 0.007	0.187 ± 0.009	0.157 ± 0.007	0.185 ± 0.009	0.156 ± 0.007	0.184 ± 0.009	0.154 ± 0.007	0.184 ± 0.009	0.152 ± 0.007	0.185 ± 0.009	0.156 ± 0.007	0.184 ± 0.009	0.149 ± 0.007
Color12	0.194 ± 0.009	0.458 ± 0.019	0.194 ± 0.009	0.459 ± 0.019	0.196 ± 0.009	0.468 ± 0.019	0.195 ± 0.009	0.468 ± 0.019	0.195 ± 0.009	0.466 ± 0.019	0.195 ± 0.009	0.467 ± 0.019	0.195 ± 0.009	0.463 ± 0.019
Color13	0.141 ± 0.007	0.441 ± 0.018	0.141 ± 0.007	0.443 ± 0.018	0.140 ± 0.007	0.453 ± 0.019	0.139 ± 0.007	0.453 ± 0.019	0.139 ± 0.007	0.450 ± 0.018	0.139 ± 0.007	0.452 ± 0.019	0.140 ± 0.007	0.447 ± 0.018
Color14	0.294 ± 0.013	0.309 ± 0.013	0.294 ± 0.013	0.313 ± 0.013	0.303 ± 0.013	0.325 ± 0.014	0.303 ± 0.013	0.325 ± 0.014	0.301 ± 0.013	0.321 ± 0.013	0.301 ± 0.013	0.323 ± 0.013	0.299 ± 0.013	0.317 ± 0.013
Color15	0.194 ± 0.009	0.556 ± 0.023	0.195 ± 0.009	0.556 ± 0.023	0.198 ± 0.009	0.558 ± 0.023	0.197 ± 0.009	0.557 ± 0.023	0.197 ± 0.009	0.557 ± 0.023	0.197 ± 0.009	0.556 ± 0.023	0.197 ± 0.009	0.557 ± 0.023

Color uniformity result (Δu',v'), for location HL - continue Table 59/Color uniformity, Directional requirement .

n=	HL1-2	HL1-3	HL1-4	HL1-5	HL1-6	HL1-7	HL2-3	HL2-4	HL2-5	HL2-6	HL2-7	HL3-4	HL3-5	HL3-6	HL3-7	HL4-5	HL4-6	HL4-7	HL5-6	HL5-7	HL6-7
C1	0.002 ± 0.027	0.003 ± 0.027	0.002 ± 0.027	0.002 ± 0.027	0.002 ± 0.027	0.001 ± 0.027	0.004 ± 0.027	0.004 ± 0.027	0.003 ± 0.027	0.003 ± 0.027	0.002 ± 0.027	0.001 ± 0.029	0.001 ± 0.030	0.002 ± 0.029	0.002 ± 0.027	0.001 ± 0.030	0.001 ± 0.029	0.002 ± 0.027	0.001 ± 0.028	0.002 ± 0.027	0.001 ± 0.027
C2	0.001 ± 0.021	0.001 ± 0.028	0.001 ± 0.026	0.001 ± 0.031	0.001 ± 0.033	0.001 ± 0.019	0.001 ± 0.009	0.001 ± 0.032	0.001 ± 0.009	0.001 ± 0.012	0.002 ± 0.020	0.001 ± 0.025	0.001 ± 0.010	0.001 ± 0.016	0.002 ± 0.021	0.001 ± 0.015	0.001 ± 0.022	0.002 ± 0.023	0.001 ± 0.023	0.001 ± 0.025	0.001 ± 0.022
C3	0.002 ± 0.009	0.002 ± 0.010	0.002 ± 0.009	0.001 ± 0.013	0.002 ± 0.012	0.002 ± 0.011	0.003 ± 0.009	0.004 ± 0.009	0.002 ± 0.010	0.003 ± 0.010	0.002 ± 0.011	0.001 ± 0.009	0.001 ± 0.010	0.001 ± 0.012	0.002 ± 0.009	0.002 ± 0.009	0.002 ± 0.010	0.003 ± 0.009	0.001 ± 0.010	0.001 ± 0.009	0.001 ± 0.009
C4	0.001 ± 0.025	0.001 ± 0.026	0.001 ± 0.027	0.002 ± 0.027	0.003 ± 0.027	0.002 ± 0.027	0.000 ± 0.027	0.001 ± 0.025	0.002 ± 0.027	0.003 ± 0.027	0.002 ± 0.027	0.000 ± 0.023	0.002 ± 0.027	0.002 ± 0.027	0.002 ± 0.027	0.002 ± 0.026	0.002 ± 0.027	0.003 ± 0.027	0.001 ± 0.025	0.004 ± 0.027	0.004 ± 0.027
C5	0.001 ± 0.026	0.001 ± 0.025	0.001 ± 0.025	0.002 ± 0.025	0.003 ± 0.025	0.002 ± 0.024	0.000 ± 0.021	0.001 ± 0.020	0.002 ± 0.025	0.003 ± 0.025	0.003 ± 0.025	0.000 ± 0.026	0.002 ± 0.026	0.002 ± 0.025	0.003 ± 0.024	0.002 ± 0.026	0.002 ± 0.025	0.003 ± 0.024	0.001 ± 0.024	0.005 ± 0.025	0.005 ± 0.025
C6	0.001 ± 0.019	0.001 ± 0.019	0.001 ± 0.019	0.004 ± 0.019	0.005 ± 0.019	0.002 ± 0.019	0.001 ± 0.019	0.001 ± 0.019	0.003 ± 0.019	0.003 ± 0.019	0.003 ± 0.019	0.000 ± 0.019	0.003 ± 0.019	0.003 ± 0.019	0.003 ± 0.019	0.003 ± 0.019	0.003 ± 0.019	0.003 ± 0.019	0.000 ± 0.019	0.006 ± 0.019	0.006 ± 0.019
C7	0.001 ± 0.014	0.001 ± 0.030	0.001 ± 0.028	0.001 ± 0.024	0.001 ± 0.014	0.001 ± 0.028	0.001 ± 0.028	0.001 ± 0.027	0.001 ± 0.025	0.001 ± 0.014	0.001 ± 0.029	0.001 ± 0.026	0.001 ± 0.016	0.001 ± 0.022	0.001 ± 0.028	0.001 ± 0.015	0.001 ± 0.024	0.001 ± 0.028	0.001 ± 0.028	0.001 ± 0.032	0.001 ± 0.031
C8	0.001 ± 0.026	0.008 ± 0.026	0.008 ± 0.026	0.007 ± 0.026	0.009 ± 0.026	0.004 ± 0.026	0.007 ± 0.026	0.007 ± 0.027	0.007 ± 0.026	0.007 ± 0.027	0.003 ± 0.026	0.001 ± 0.027	0.000 ± 0.025	0.001 ± 0.027	0.003 ± 0.027	0.001 ± 0.027	0.000 ± 0.024	0.004 ± 0.027	0.001 ± 0.027	0.003 ± 0.027	0.004 ± 0.027
C9	0.004 ± 0.027	0.007 ± 0.026	0.008 ± 0.026	0.007 ± 0.026	0.005 ± 0.027	0.010 ± 0.026	0.011 ± 0.026	0.012 ± 0.026	0.011 ± 0.026	0.008 ± 0.026	0.014 ± 0.026	0.001 ± 0.026	0.002 ± 0.030	0.005 ± 0.029	0.003 ± 0.026	0.002 ± 0.030	0.006 ± 0.028	0.002 ± 0.026	0.004 ± 0.027	0.003 ± 0.028	0.007 ± 0.028
C10	0.001 ± 0.028	0.002 ± 0.029	0.002 ± 0.031	0.001 ± 0.032	0.001 ± 0.015	0.002 ± 0.022	0.002 ± 0.032	0.002 ± 0.032	0.002 ± 0.031	0.001 ± 0.032	0.002 ± 0.032	0.000 ± 0.018	0.001 ± 0.022	0.002 ± 0.032	0.001 ± 0.032	0.001 ± 0.028	0.002 ± 0.032	0.001 ± 0.031	0.001 ± 0.029	0.001 ± 0.009	0.001 ± 0.031
C11	0.002 ± 0.011	0.003 ± 0.013	0.004 ± 0.012	0.005 ± 0.011	0.004 ± 0.012	0.008 ± 0.010	0.002 ± 0.012	0.004 ± 0.011	0.006 ± 0.010	0.003 ± 0.012	0.009 ± 0.010	0.002 ± 0.010	0.004 ± 0.010	0.001 ± 0.012	0.007 ± 0.010	0.002 ± 0.010	0.002 ± 0.010	0.005 ± 0.010	0.004 ± 0.010	0.003 ± 0.010	0.007 ± 0.010
C12	0.001 ± 0.026	0.010 ± 0.027	0.011 ± 0.027	0.008 ± 0.027	0.010 ± 0.027	0.005 ± 0.026	0.009 ± 0.026	0.009 ± 0.027	0.007 ± 0.026	0.008 ± 0.027	0.004 ± 0.026	0.001 ± 0.027	0.002 ± 0.026	0.001 ± 0.021	0.005 ± 0.027	0.003 ± 0.027	0.001 ± 0.026	0.005 ± 0.027	0.001 ± 0.027	0.003 ± 0.027	0.004 ± 0.027
C13	0.002 ± 0.026	0.011 ± 0.026	0.012 ± 0.026	0.009 ± 0.025	0.011 ± 0.026	0.006 ± 0.026	0.010 ± 0.026	0.010 ± 0.026	0.008 ± 0.025	0.009 ± 0.026	0.004 ± 0.026	0.001 ± 0.024	0.002 ± 0.026	0.001 ± 0.025	0.005 ± 0.026	0.003 ± 0.026	0.001 ± 0.026	0.006 ± 0.026	0.002 ± 0.026	0.003 ± 0.025	0.005 ± 0.026
C14	0.004 ± 0.018	0.017 ± 0.019	0.018 ± 0.019	0.013 ± 0.019	0.016 ± 0.019	0.009 ± 0.019	0.014 ± 0.019	0.015 ± 0.019	0.011 ± 0.019	0.013 ± 0.019	0.006 ± 0.019	0.001 ± 0.019	0.004 ± 0.019	0.002 ± 0.019	0.008 ± 0.019	0.004 ± 0.019	0.002 ± 0.019	0.009 ± 0.019	0.002 ± 0.019	0.005 ± 0.019	0.007 ± 0.019
C15	0.000 ± 0.021	0.003 ± 0.017	0.003 ± 0.017	0.002 ± 0.015	0.003 ± 0.013	0.002 ± 0.016	0.003 ± 0.019	0.003 ± 0.019	0.003 ± 0.018	0.002 ± 0.014	0.002 ± 0.018	0.000 ± 0.016	0.001 ± 0.022	0.001 ± 0.028	0.001 ± 0.022	0.001 ± 0.025	0.001 ± 0.029	0.001 ± 0.025	0.000 ± 0.032	0.000 ± 0.020	0.001 ± 0.032

Table 59 - Directional measurement

Color values (u',v'), for location LL - continue Table 59/Color uniformity, Directional requirement.

LL1~7	LL-1		LL-2		LL-3		LL-4		LL-5		LL-6		LL-7	
n=	u'	v'	u'	v'	u'	v'	u'	v'	u'	v'	u'	v'	u'	v'
Color1	0.438 ± 0.019	0.525 ± 0.021	0.438 ± 0.019	0.525 ± 0.021	0.440 ± 0.019	0.526 ± 0.021	0.440 ± 0.019	0.526 ± 0.021	0.440 ± 0.019	0.526 ± 0.021	0.439 ± 0.019	0.525 ± 0.021	0.438 ± 0.019	0.525 ± 0.021
Color2	0.122 ± 0.006	0.567 ± 0.023	0.122 ± 0.006	0.567 ± 0.023	0.121 ± 0.006	0.567 ± 0.023	0.121 ± 0.006	0.567 ± 0.023	0.121 ± 0.006	0.567 ± 0.023	0.122 ± 0.006	0.567 ± 0.023	0.122 ± 0.006	0.567 ± 0.023
Color3	0.186 ± 0.009	0.139 ± 0.006	0.186 ± 0.009	0.142 ± 0.006	0.186 ± 0.009	0.139 ± 0.006	0.186 ± 0.009	0.140 ± 0.006	0.186 ± 0.009	0.140 ± 0.006	0.185 ± 0.009	0.141 ± 0.006	0.185 ± 0.009	0.138 ± 0.006
Color4	0.197 ± 0.009	0.463 ± 0.019	0.197 ± 0.009	0.464 ± 0.019	0.197 ± 0.009	0.464 ± 0.019	0.197 ± 0.009	0.464 ± 0.019	0.197 ± 0.009	0.465 ± 0.019	0.197 ± 0.009	0.466 ± 0.019	0.197 ± 0.009	0.462 ± 0.019
Color5	0.139 ± 0.007	0.448 ± 0.018	0.139 ± 0.007	0.449 ± 0.018	0.139 ± 0.007	0.449 ± 0.018	0.139 ± 0.007	0.449 ± 0.018	0.139 ± 0.007	0.451 ± 0.018	0.139 ± 0.007	0.451 ± 0.018	0.140 ± 0.007	0.447 ± 0.018
Color6	0.304 ± 0.014	0.317 ± 0.013	0.304 ± 0.014	0.319 ± 0.013	0.305 ± 0.014	0.319 ± 0.013	0.304 ± 0.014	0.318 ± 0.013	0.305 ± 0.014	0.320 ± 0.013	0.305 ± 0.014	0.321 ± 0.013	0.301 ± 0.013	0.317 ± 0.013
Color7	0.201 ± 0.009	0.557 ± 0.023	0.201 ± 0.009	0.557 ± 0.023	0.200 ± 0.009	0.557 ± 0.023	0.200 ± 0.009	0.557 ± 0.023	0.201 ± 0.009	0.557 ± 0.023	0.201 ± 0.009	0.557 ± 0.023	0.200 ± 0.009	0.557 ± 0.023
Color8	0.195 ± 0.009	0.460 ± 0.019	0.196 ± 0.009	0.462 ± 0.019	0.196 ± 0.009	0.468 ± 0.019	0.196 ± 0.009	0.468 ± 0.019	0.196 ± 0.009	0.467 ± 0.019	0.196 ± 0.009	0.468 ± 0.019	0.196 ± 0.009	0.464 ± 0.019
Color9	0.424 ± 0.018	0.521 ± 0.021	0.422 ± 0.018	0.521 ± 0.021	0.430 ± 0.018	0.523 ± 0.021	0.432 ± 0.019	0.523 ± 0.021	0.430 ± 0.018	0.521 ± 0.021	0.428 ± 0.018	0.520 ± 0.021	0.433 ± 0.019	0.523 ± 0.021
Color10	0.123 ± 0.006	0.565 ± 0.023	0.124 ± 0.006	0.565 ± 0.023	0.124 ± 0.006	0.566 ± 0.023	0.123 ± 0.006	0.566 ± 0.023	0.123 ± 0.006	0.565 ± 0.023	0.124 ± 0.006	0.565 ± 0.023	0.124 ± 0.006	0.566 ± 0.023
Color11	0.186 ± 0.009	0.159 ± 0.007	0.186 ± 0.009	0.162 ± 0.007	0.184 ± 0.009	0.162 ± 0.007	0.184 ± 0.009	0.159 ± 0.007	0.184 ± 0.009	0.157 ± 0.007	0.183 ± 0.009	0.160 ± 0.007	0.183 ± 0.009	0.154 ± 0.007
Color12	0.194 ± 0.009	0.461 ± 0.019	0.194 ± 0.009	0.463 ± 0.019	0.196 ± 0.009	0.471 ± 0.019	0.195 ± 0.009	0.471 ± 0.019	0.195 ± 0.009	0.469 ± 0.019	0.195 ± 0.009	0.470 ± 0.019	0.195 ± 0.009	0.466 ± 0.019
Color13	0.141 ± 0.007	0.446 ± 0.018	0.141 ± 0.007	0.447 ± 0.018	0.140 ± 0.007	0.456 ± 0.019	0.139 ± 0.007	0.457 ± 0.019	0.139 ± 0.007	0.454 ± 0.019	0.139 ± 0.007	0.456 ± 0.019	0.140 ± 0.007	0.451 ± 0.018
Color14	0.295 ± 0.013	0.315 ± 0.013	0.296 ± 0.013	0.318 ± 0.013	0.303 ± 0.013	0.329 ± 0.014	0.304 ± 0.013	0.329 ± 0.014	0.302 ± 0.013	0.325 ± 0.014	0.302 ± 0.013	0.328 ± 0.014	0.299 ± 0.013	0.321 ± 0.013
Color15	0.196 ± 0.009	0.556 ± 0.023	0.196 ± 0.009	0.556 ± 0.023	0.198 ± 0.009	0.558 ± 0.023	0.198 ± 0.009	0.557 ± 0.023	0.197 ± 0.009	0.557 ± 0.023	0.197 ± 0.009	0.556 ± 0.023	0.197 ± 0.009	0.557 ± 0.023

Color uniformity result (Δu',v'), for location LL - continue Table 59/Color uniformity, Directional requirement .

n=	LL1-2	LL1-3	LL1-4	LL1-5	LL1-6	LL1-7	LL2-3	LL2-4	LL2-5	LL2-6	LL2-7	LL3-4	LL3-5	LL3-6	LL3-7	LL4-5	LL4-6	LL4-7	LL5-6	LL5-7	LL6-7
C1	0.001 ± 0.030	0.002 ± 0.027	0.002 ± 0.027	0.003 ± 0.027	0.001 ± 0.027	0.000 ± 0.027	0.002 ± 0.027	0.002 ± 0.027	0.003 ± 0.027	0.001 ± 0.027	0.000 ± 0.027	0.001 ± 0.027	0.000 ± 0.028	0.001 ± 0.028	0.002 ± 0.027	0.000 ± 0.029	0.002 ± 0.028	0.002 ± 0.027	0.001 ± 0.027	0.002 ± 0.027	0.001 ± 0.027
C2	0.000 ± 0.017	0.001 ± 0.027	0.001 ± 0.025	0.001 ± 0.024	0.001 ± 0.032	0.001 ± 0.021	0.001 ± 0.024	0.001 ± 0.022	0.001 ± 0.021	0.000 ± 0.018	0.001 ± 0.025	0.001 ± 0.028	0.000 ± 0.031	0.001 ± 0.027	0.002 ± 0.024	0.000 ± 0.026	0.001 ± 0.024	0.001 ± 0.023	0.001 ± 0.023	0.001 ± 0.022	0.001 ± 0.022
C3	0.003 ± 0.009	0.000 ± 0.009	0.001 ± 0.010	0.001 ± 0.009	0.002 ± 0.010	0.002 ± 0.011	0.003 ± 0.009	0.002 ± 0.009	0.002 ± 0.009	0.001 ± 0.010	0.004 ± 0.009	0.001 ± 0.009	0.002 ± 0.009	0.002 ± 0.009	0.001 ± 0.011	0.001 ± 0.009	0.001 ± 0.009	0.002 ± 0.010	0.001 ± 0.010	0.002 ± 0.009	0.003 ± 0.009
C4	0.001 ± 0.027	0.001 ± 0.026	0.001 ± 0.025	0.002 ± 0.027	0.003 ± 0.027	0.002 ± 0.025	0.000 ± 0.013	0.001 ± 0.021	0.002 ± 0.027	0.002 ± 0.027	0.002 ± 0.026	0.000 ± 0.026	0.001 ± 0.027	0.001 ± 0.027	0.002 ± 0.026	0.002 ± 0.027	0.002 ± 0.027	0.002 ± 0.027	0.001 ± 0.021	0.004 ± 0.027	0.004 ± 0.027
C5	0.002 ± 0.026	0.001 ± 0.025	0.001 ± 0.023	0.003 ± 0.025	0.003 ± 0.025	0.002 ± 0.025	0.000 ± 0.026	0.001 ± 0.020	0.002 ± 0.025	0.002 ± 0.025	0.003 ± 0.025	0.000 ± 0.012	0.002 ± 0.025	0.002 ± 0.025	0.002 ± 0.025	0.002 ± 0.026	0.003 ± 0.026	0.003 ± 0.024	0.001 ± 0.026	0.004 ± 0.025	0.005 ± 0.025
C6	0.002 ± 0.019	0.002 ± 0.019	0.001 ± 0.019	0.003 ± 0.019	0.004 ± 0.019	0.002 ± 0.019	0.000 ± 0.019	0.001 ± 0.019	0.002 ± 0.019	0.002 ± 0.019	0.004 ± 0.019	0.001 ± 0.019	0.002 ± 0.019	0.002 ± 0.019	0.004 ± 0.019	0.002 ± 0.019	0.003 ± 0.019	0.003 ± 0.019	0.000 ± 0.019	0.006 ± 0.019	0.006 ± 0.019
C7	0.001 ± 0.016	0.001 ± 0.028	0.000 ± 0.028	0.001 ± 0.032	0.001 ± 0.032	0.001 ± 0.028	0.001 ± 0.026	0.000 ± 0.027	0.001 ± 0.030	0.001 ± 0.031	0.001 ± 0.026	0.000 ± 0.024	0.001 ± 0.020	0.001 ± 0.022	0.001 ± 0.032	0.000 ± 0.018	0.000 ± 0.021	0.001 ± 0.032	0.001 ± 0.025	0.001 ± 0.031	0.001 ± 0.029
C8	0.001 ± 0.027	0.008 ± 0.027	0.008 ± 0.027	0.007 ± 0.027	0.008 ± 0.027	0.004 ± 0.027	0.006 ± 0.027	0.006 ± 0.027	0.006 ± 0.027	0.006 ± 0.027	0.002 ± 0.027	0.000 ± 0.026	0.001 ± 0.023	0.000 ± 0.026	0.004 ± 0.027	0.001 ± 0.024	0.000 ± 0.024	0.004 ± 0.027	0.001 ± 0.027	0.003 ± 0.027	0.004 ± 0.027
C9	0.002 ± 0.026	0.007 ± 0.026	0.009 ± 0.026	0.007 ± 0.026	0.005 ± 0.026	0.010 ± 0.026	0.008 ± 0.026	0.011 ± 0.026	0.009 ± 0.026	0.006 ± 0.026	0.011 ± 0.026	0.003 ± 0.026	0.003 ± 0.030	0.004 ± 0.029	0.003 ± 0.026	0.003 ± 0.029	0.005 ± 0.028	0.001 ± 0.027	0.003 ± 0.027	0.003 ± 0.028	0.006 ± 0.027
C10	0.000 ± 0.010	0.001 ± 0.031	0.002 ± 0.032	0.001 ± 0.032	0.001 ± 0.014	0.001 ± 0.030	0.001 ± 0.032	0.002 ± 0.032	0.001 ± 0.029	0.000 ± 0.032	0.001 ± 0.032	0.000 ± 0.016	0.001 ± 0.024	0.001 ± 0.032	0.000 ± 0.032	0.001 ± 0.030	0.001 ± 0.032	0.001 ± 0.030	0.001 ± 0.028	0.001 ± 0.015	0.001 ± 0.032
C11	0.003 ± 0.010	0.004 ± 0.011	0.003 ± 0.012	0.004 ± 0.012	0.004 ± 0.012	0.006 ± 0.011	0.002 ± 0.012	0.004 ± 0.011	0.005 ± 0.010	0.003 ± 0.012	0.008 ± 0.010	0.003 ± 0.010	0.005 ± 0.010	0.002 ± 0.011	0.007 ± 0.010	0.002 ± 0.010	0.001 ± 0.010	0.005 ± 0.010	0.003 ± 0.010	0.003 ± 0.010	0.006 ± 0.010
C12	0.002 ± 0.027	0.010 ± 0.027	0.010 ± 0.027	0.008 ± 0.027	0.010 ± 0.027	0.005 ± 0.027	0.008 ± 0.027	0.008 ± 0.027	0.007 ± 0.027	0.007 ± 0.027	0.003 ± 0.027	0.000 ± 0.025	0.002 ± 0.026	0.001 ± 0.025	0.005 ± 0.027	0.002 ± 0.026	0.001 ± 0.025	0.005 ± 0.027	0.001 ± 0.027	0.003 ± 0.027	0.004 ± 0.027
C13	0.002 ± 0.026	0.011 ± 0.026	0.011 ± 0.026	0.009 ± 0.026	0.011 ± 0.026	0.006 ± 0.026	0.009 ± 0.026	0.009 ± 0.026	0.008 ± 0.026	0.008 ± 0.026	0.004 ± 0.026	0.000 ± 0.016	0.002 ± 0.026	0.001 ± 0.026	0.005 ± 0.026	0.002 ± 0.026	0.001 ± 0.026	0.005 ± 0.026	0.001 ± 0.026	0.003 ± 0.025	0.005 ± 0.026
C14	0.003 ± 0.019	0.016 ± 0.019	0.016 ± 0.019	0.012 ± 0.019	0.015 ± 0.019	0.007 ± 0.019	0.013 ± 0.019	0.014 ± 0.019	0.010 ± 0.019	0.012 ± 0.019	0.005 ± 0.019	0.001 ± 0.019	0.004 ± 0.019	0.001 ± 0.019	0.009 ± 0.019	0.004 ± 0.019	0.002 ± 0.019	0.009 ± 0.019	0.003 ± 0.019	0.005 ± 0.019	0.008 ± 0.019
C15	0.000 ± 0.015	0.002 ± 0.019	0.003 ± 0.019	0.002 ± 0.018	0.002 ± 0.014	0.002 ± 0.019	0.002 ± 0.020	0.003 ± 0.020	0.002 ± 0.019	0.002 ± 0.014	0.002 ± 0.021	0.000 ± 0.023	0.001 ± 0.021	0.001 ± 0.030	0.001 ± 0.018	0.001 ± 0.022	0.001 ± 0.029	0.001 ± 0.020	0.001 ± 0.029	0.000 ± 0.016	0.001 ± 0.027

Test Report

Compliance assessment

Table 62 Contrast non-uniformity	PASS/FAIL/(N/A:not applicable)/*(with comments)
Pass/Fail criterion based on requirements and intended context of use.	*PASS*

a) Lateral non-uniformity criterion
For an intended uniform appearance, the contrast nonuniformity, $CR_{non\text{-}uniformity} = 1 - CR_{min}/CR_{max}$, shall not exceed 50 %, where CR is the luminance contrast.

b) Directional non-uniformity criterion
The visual display shall have sufficient contrast uniformity over all relevant viewing directions (see design viewing direction).
1) The luminance contrast, CR, shall exceed the limit CRmin.
2) There shall be no contrast inversion.

Measuring method :	*ISO 9241-305, P18.5*
Assessment and reporting	*Refer to following Tables for Lateral and Directional measurement result.*

Lateral contrast non-uniformity evaluation								**Result**	PASS
Location	11	22	33	44	55	66	77	88	99
$L_{Es,HS(n)}$	*225.0* ± 11.1	*252.2* ± 12.4	*255.2* ± 12.6	*256.7* ± 12.7	*254.7* ± 12.6	*239.4* ± 11.8	*228.4* ± 11.3	*228.6* ± 11.3	*210.0* ± 10.4
$L_{Es,LS(n)}$	*4.9* ± 0.4	*4.8* ± 0.4	*4.8* ± 0.4	*4.8* ± 0.4	*4.7* ± 0.4	*4.8* ± 0.4	*4.7* ± 0.4	*4.8* ± 0.4	*4.9* ± 0.4
$CR_{Es(n)}$	*46.3* ± 4.4	*52.2* ± 4.9	*53.5* ± 5.1	*54.0* ± 5.1	*53.8* ± 5.1	*50.4* ± 4.8	*48.2* ± 4.6	*47.7* ± 4.5	*43.3* ± 4.1
CR_{min}	*3.9* ± 0.1	*3.9* ± 0.1	*4.0* ± 0.1	*4.0* ± 0.1	*4.0* ± 0.1	*4.0* ± 0.1	*4.0* ± 0.1	*3.9* ± 0.1	*3.9* ± 0.1
CR_{max}	*54.0* ± 5.1	$CR_{uniformity}$		*53.2%* ± 16.7%					
CR_{min}	*43.3* ± 4.1	$CR_{nonuniformity}$		*46.8%* ± 16.7%					

Directional luminance contrast	**Result**	PASS
Refer to Table 72-Luminance contrast for measurement datas		

Table 62 Geometric distortions	PASS/FAIL/(N/A:not applicable)/*(with comments)	*N/A*

Table 62 Screen and faceplate defects	PASS/FAIL/(N/A:not applicable)/*(with comments)
Pass/Fail criterion based on requirements and intended context of use.	*PASS**

The visual display should be in the fault class, $Class_{Pixel}$ 0. If not in $Class_{Pixel}$ 0, the supplier shall specify the $Class_{Pixel}$ of the visual display in accordance with Table 63.

The pixel fault class which specified by supplier: *CLASS I*
The multiplier, $n_{ClassPixel}$ specified by supplier: *0*

*Evaluation method is not specified in ISO 9241-305 M 21.6 yet.
*Screen and faceplate defects were verified by visual inspection.

Measuring method :	*ISO 9241-305 M 21.6*
Assessment and reporting	*Refer to Table 63*

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Table 63 - Pixel fault classifications, fault pixels criterion (per million for size >9.1 inch)						
Pixel fault class $Class_{Pixel}(n)$	Type 1	Type 2	Type 3		Cluster fault Type1/Type2	Cluster fault Type 3
			Stuck high	Stuck low		
$Class_{Pixel}0$	0	0	0	0	0	0
$Class_{Pixel}I$ (for type 3 = 5PSU)	2	2	5	2	0	0
	2	2	2	7	0	0
	2	2	0	12	0	0
$Class_{Pixel}II$ (for type 3 = 10PSU)	5	5	12	0	0	2
	5	5	12	0	0	2
	5	5	0	23	0	2
$Class_{Pixel}III$ (for type 3 = 100PSU)	12	35	115	0	0	12
	12	35	115	0	0	12
	12	35	0	230	0	12
$Class_{Pixel}IV$ (for type 3 = 1000PSU)	115	346	1152	0	12	115
	115	346	1152	0	12	115
	115	346	0	2304	12	115

Table 63 Observation result for Pixel fault class						
Pixel fault class $Class_{Pixel}(n)$	Type 1	Type 2	Type 3		Cluster fault Type1/Type2	Cluster fault Type 3
			Stuck high	Stuck low		
CLASS I	0	0	2	1	0	0

Table 64 Temporal instability (Flicker)	PASS/FAIL/(N/A:not applicable)/*(with comments)
Pass/Fail criterion based on requirements and intended context of use.	PASS
The entire image area shall be free of flicker to at least 90% of the user population.	
Measuring method :	ISO 9241-305, P15.3
Assessment and reporting	Refer to following measurement datas.

L_t cd/m²	248.6
A mm²	5.14
DC	1278

	Base Repetition Freq. (Hz)	Frequency 2 (Hz)	Frequency 3 (Hz)	Frequency 4 (Hz)
	30.0	60.0	90.0	120.0
AMP	0.00009	0.00016	0.00016	0.00014
E_{obs}	0.1	0.2	0.2	0.2
E_{pred}	19	684	25108	921666

Table 64 Spatial instability (Jitter)	PASS/FAIL/(N/A:not applicable)/*(with comments)	N/A

Table 64 Moire effects	PASS/FAIL/(N/A:not applicable)/*(with comments)
Pass/Fail criterion based on requirements and intended context of use.	PASS
For colour displays, the entire image area shall be free of moire patterns to enable the user to perform the task in an effective and efficient way.	
Measuring method :	ISO 9241-305
Assessment and reporting	Refer to following visual inspection result.
Display on the entire image area horizontal and vertical bars with maximum resolution as well as a pixel checker board and observe the screen for moire patterns. Visual inspection result: Moire effect didn't found from horizontal and vertical bars with checker board pattern.	

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Table 64 Other visual artefacts	PASS/FAIL/(N/A:not applicable)/*(with comments)
Pass/Fail criterion based on requirements and intended context of use.	*PASS*
The entire image area shall be free of other visual artefacts to enable the user to perform the task in an effective and efficient way.	
Measuring method :	*ISO 9241-305*
Assessment and reporting	*Refer to following visual inspection result.*
Display on the entire image area horizontal and vertical bars with maximum resolution as well as a pixel checker board and observe the screen for moire patterns. Visual inspection result: *Other visual artefacts didn't found with visual inspection.*	

Table 64 Unwanted reflections	PASS/FAIL/(N/A:not applicable)/*(with comments)
Pass/Fail criterion based on requirements and intended context of use.	*PASS*

The type of artificial information shown on the visual display shall fulfil the following requirements.

The visual display shall be suitable for the intended environment. Over all relevant viewing directions (see design viewing direction), the following requirements shall be fulfilled:

1) $$\frac{L_H + L_D + L_S}{L_L + L_D + L_S} \geq 2.2 + 4.84 * (L_L + L_D + L_S)^{-0.65}$$

2) For visual display using positive polarity

$$\frac{L_H + L_D + L_S}{L_H + L_D} \leq 1.25$$

3) For visual display using negative polarity

$$\frac{L_L + L_D + L_S}{L_L + L_D} \leq 1.2 + \frac{1}{15} * \frac{L_H + L_D}{L_L + L_D}$$

Classification of illumination condition			
Classification	Extended Light source	AND/OR	Small Light source
Class I++	500	N/A	
Class I+	300		
Class I	200	AND	2000
Class II	200	OR	2000
Class III	125	OR	200

Note:
- The classification definition used to indicate the illumination condition, and Class I, Class II and Class III are same as ISO 13406-2.
- Reflection class"+" and "++" (not defined by 9241-307) is given for the more strict illumination condition $L_{REF,EXT}$=300 and 500.

Measuring method :	*ISO 9241-305 P16.3*
Assessment and reporting	*See result summarization table, and Table 66 for detail measurement data.*

Reflection result summarization	Class I++	Class I+	Class I	Class II	Class III	levels
Contrast in the presence of reflections	*PASS*	*PASS*	*PASS*	*PASS*	*PASS*	*Class I++*
Contrast of unwanted reflections, Positive	*PASS*	*PASS*	*PASS*	*PASS*	*PASS*	*Class I++*
Contrast of unwanted reflections, Negative	*FAIL*	*FAIL*	*PASS*	*PASS*	*PASS*	*Class I*

Reflection class_Test Result	*Class I*
Reflection class_Product Specification	*Class I*
Reflection class_Final Result	*PASS*

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Table 66 measurement data for unwanted reflections

Contrast in the presence of reflections $\frac{L_H + L_D + L_S}{L_L + L_D + L_S} \geq 2.2 + 4.84 * (L_L + L_D + L_S)^{-0.65}$

Direction	CL-1S	CL-2S	CL-3S	CL-4S	CL-5S	CL-6S	≥	CL-1S	CL-2S	CL-3S	CL-4S	CL-5S	CL-6S
Ref_Light	Performance evaluation						≤	Criterion evaluation					
EXT Class 0a	9.9 ± 1.5	9.7 ± 1.3	9.0 ± 1.4	8.8 ± 1.4	8.8 ± 1.3	8.7 ± 1.3	≥	2.9 ± 0.4	2.8 ± 0.4	2.8 ± 0.4	2.8 ± 0.3	2.8 ± 0.3	2.8 ± 0.3
EXT Class 0b	15.7 ± 2.4	15.3 ± 2.0	14.3 ± 2.2	13.9 ± 2.2	13.8 ± 2.0	13.7 ± 2.1	≥	3.1 ± 0.4	3.1 ± 0.4	3.1 ± 0.4	3.0 ± 0.4	3.1 ± 0.4	3.0 ± 0.4
EXT Class I	22.7 ± 3.4	22.1 ± 2.9	20.7 ± 3.2	20.1 ± 3.1	20.1 ± 2.9	19.7 ± 3.0	≥	3.3 ± 0.5	3.3 ± 0.4	3.3 ± 0.5	3.3 ± 0.4	3.3 ± 0.4	3.3 ± 0.4
SML Class I	228.0 ± 51.9	216.4 ± 47.9	201.8 ± 42.5	256.8 ± 67.2	218.1 ± 49.7	173.8 ± 32.9	≥	7.0 ± 1.4	6.8 ± 1.4	6.8 ± 1.4	7.6 ± 1.6	7.1 ± 1.5	6.5 ± 1.2
EXT Class III	34.6 ± 5.1	33.5 ± 4.3	31.7 ± 4.9	31.0 ± 4.8	30.9 ± 4.5	30.3 ± 4.5	≥	3.6 ± 0.5	3.6 ± 0.5	3.6 ± 0.5	3.6 ± 0.5	3.6 ± 0.5	3.6 ± 0.5
SML Class III	382.4 ± 142.5	320.7 ± 103.1	424.4 ± 181.3	484.4 ± 233.9	474.5 ± 227.8	390.3 ± 158.2	≥	8.9 ± 2.3	8.2 ± 1.9	9.7 ± 2.7	10.3 ± 3.2	10.3 ± 3.2	9.4 ± 2.6

Contrast of unwanted reflections
Positive polarity $\frac{L_H + L_D + L_S}{L_H + L_D} \leq 1.25$

Direction	CL-1S	CL-2S	CL-3S	CL-4S	CL-5S	CL-6S	≥	CL-1S	CL-2S	CL-3S	CL-4S	CL-5S	CL-6S
Ref_Light	Performance evaluation						≤	Criterion evaluation					
EXT Class 0a	1.1 ± 0.1	1.1 ± 0.1	1.1 ± 0.1	1.1 ± 0.1	1.1 ± 0.1	1.1 ± 0.1	≤	1.25	1.25	1.25	1.25	1.25	1.25
EXT Class 0b	1.1 ± 0.1	1.1 ± 0.1	1.1 ± 0.1	1.1 ± 0.1	1.1 ± 0.1	1.1 ± 0.1	≤	1.25	1.25	1.25	1.25	1.25	1.25
EXT Class I	1.0 ± 0.1	1.0 ± 0.1	1.0 ± 0.1	1.0 ± 0.1	1.0 ± 0.1	1.0 ± 0.1	≤	1.25	1.25	1.25	1.25	1.25	1.25
SML Class I	1.0 ± 0.1	1.0 ± 0.1	1.0 ± 0.1	1.0 ± 0.1	1.0 ± 0.1	1.0 ± 0.1	≤	1.25	1.25	1.25	1.25	1.25	1.25
EXT Class III	1.0 ± 0.1	1.0 ± 0.1	1.0 ± 0.1	1.0 ± 0.1	1.0 ± 0.1	1.0 ± 0.1	≤	1.25	1.25	1.25	1.25	1.25	1.25
SML Class III	1.0 ± 0.1	1.0 ± 0.1	1.0 ± 0.1	1.0 ± 0.1	1.0 ± 0.1	1.0 ± 0.1	≤	1.25	1.25	1.25	1.25	1.25	1.25

Contrast of unwanted reflections
Negative polarity $\frac{L_L + L_D + L_S}{L_L + L_D} \leq 1.2 + \frac{1}{15} * \frac{L_H + L_D}{L_L + L_D}$

Direction	CL-1S	CL-2S	CL-3S	CL-4S	CL-5S	CL-6S	≥	CL-1S	CL-2S	CL-3S	CL-4S	CL-5S	CL-6S
Ref_Light	Performance evaluation						≤	Criterion evaluation					
EXT Class 0a	46.0 ± 19.5	38.5 ± 13.7	59.8 ± 30.2	68.5 ± 37.9	69.9 ± 39.6	58.7 ± 28.7	≤	28.8 ± 11.1	23.8 ± 7.7	33.5 ± 15.7	37.0 ± 19.2	37.6 ± 20.1	31.4 ± 14.2
EXT Class 0b	28.0 ± 11.9	23.5 ± 8.4	36.3 ± 18.3	41.5 ± 23.0	42.3 ± 24.0	35.6 ± 17.4	≤	28.8 ± 11.1	23.8 ± 7.7	33.5 ± 15.7	37.0 ± 19.2	37.6 ± 20.1	31.4 ± 14.2
EXT Class I	19.0 ± 8.0	16.0 ± 5.7	24.5 ± 12.4	28.0 ± 15.5	28.6 ± 16.2	24.1 ± 11.8	≤	28.8 ± 11.1	23.8 ± 7.7	33.5 ± 15.7	37.0 ± 19.2	37.6 ± 20.1	31.4 ± 14.2
SML Class I	1.8 ± 0.8	1.6 ± 0.6	2.4 ± 1.3	2.1 ± 1.2	2.5 ± 1.5	2.6 ± 1.3	≤	28.8 ± 11.1	23.8 ± 7.7	33.5 ± 15.7	37.0 ± 19.2	37.6 ± 20.1	31.4 ± 14.2
EXT Class III	12.3 ± 5.2	10.4 ± 3.7	15.7 ± 7.9	17.9 ± 9.9	18.2 ± 10.3	15.4 ± 7.5	≤	28.8 ± 11.1	23.8 ± 7.7	33.5 ± 15.7	37.0 ± 19.2	37.6 ± 20.1	31.4 ± 14.2
SML Class III	1.1 ± 0.6	1.1 ± 0.5	1.1 ± 0.7	1.1 ± 0.8	1.2 ± 0.8	1.2 ± 0.7	≤	28.8 ± 11.1	23.8 ± 7.7	33.5 ± 15.7	37.0 ± 19.2	37.6 ± 20.1	31.4 ± 14.2

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Table 70 Luminance contrast	PASS/FAIL/(N/A:not applicable)/*(with comments)
Pass/Fail criterion based on requirements and intended context of use.	*PASS*
Depending on the type of information shown, the visual display shall fulfil the following requirements. The visual display shall be suitable for the intended environment, Over all relevant viewing directions (see design viewing direction), the following requirements shall be fulfilled: $\frac{L_H + L_D}{L_L + L_D} \geq 2.2 + 4.84 * (L_L + L_D)^{-0.65}$	
Measuring method :	*ISO 9241-305, P18.2, P18.2a*
Assessment and reporting	*Refer to Table 72*

Table 72 Directional luminance contrast

Location	M/D(n)	M/D_1	M/D_2	M/D_3	M/D_4	M/D_5	M/D_6	M/D_7
CL	$L_{Es,HS(n)}$	236.7 ± 12.5	237.5 ± 12.5	208.9 ± 11.0	210.2 ± 11.1	209.6 ± 11.1	207.9 ± 11.0	248.6 ± 13.1
	$L_{Es,LS(n)}$	0.9 ± 0.3	1.0 ± 0.3	0.6 ± 0.3	0.5 ± 0.3	0.5 ± 0.3	0.6 ± 0.3	0.6 ± 0.3
	$CR_{Es(n)}$	252.0 ± 83.9	231.6 ± 73.5	367.2 ± 180.4	385.6 ± 199.3	418.6 ± 232.7	333.5 ± 155.6	386.5 ± 184.7
	$CR_{min(n)}$	7.2 ± 0.3	7.0 ± 0.3	9.2 ± 0.6	9.4 ± 0.7	9.8 ± 0.8	8.8 ± 0.6	8.6 ± 0.6
	Result	PASS	PASS	PASS	PASS	PASS	PASS	PASS
HL	$L_{Es,HS(n)}$	238.8 ± 21.1	239.5 ± 21.1	210.7 ± 18.6	212.0 ± 18.7	211.4 ± 18.7	209.7 ± 18.5	250.7 ± 22.1
	$L_{Es,LS(n)}$	1.0 ± 0.8	1.0 ± 0.9	0.6 ± 0.4	0.6 ± 0.4	0.5 ± 0.4	0.6 ± 0.5	0.6 ± 0.4
	$CR_{Es(n)}$	249.1 ± 215.2	228.8 ± 201.3	365.2 ± 273.7	384.2 ± 272.3	417.9 ± 291.6	331.4 ± 247.9	387.2 ± 214.9
	$CR_{min(n)}$	7.2 ± 0.1	6.9 ± 0.1	9.1 ± 0.1	9.3 ± 0.1	9.7 ± 0.1	8.7 ± 0.1	8.6 ± 0.1
	Result	PASS	PASS	PASS	PASS	PASS	PASS	PASS
LL	$L_{Es,HS(n)}$	187.6 ± 16.8	188.2 ± 16.8	165.6 ± 14.8	166.7 ± 14.9	166.1 ± 14.8	164.9 ± 14.7	197.1 ± 17.5
	$L_{Es,LS(n)}$	0.9 ± 0.8	1.0 ± 0.9	0.5 ± 0.4	0.5 ± 0.4	0.5 ± 0.3	0.6 ± 0.4	0.6 ± 0.3
	$CR_{Es(n)}$	213.0 ± 17.6	196.2 ± 17.8	304.4 ± 15.2	317.4 ± 15.3	342.7 ± 15.2	276.9 ± 15.2	312.8 ± 17.8
	$CR_{min(n)}$	7.5 ± 1.9	7.2 ± 2.3	9.4 ± 0.5	9.6 ± 0.4	9.9 ± 0.3	9.0 ± 0.6	8.7 ± 0.3
	Result	PASS	PASS	PASS	PASS	PASS	PASS	PASS

Table 75 Image polarity	PASS/FAIL/(N/A:not applicable)/*(with comments)
Pass/Fail criterion based on requirements and intended context of use.	*PASS*
Depending on the type of information shown, the visual display shall fulfil the following requirement. a) Artificial information If the display provides positive and negative polarity , it shall meet all requirements of this compliance route for each image polarity.	
Measuring method :	*Not applicable.*
Assessment and reporting	*Check requirements for unwanted reflection and character attributes for positive and negative polarity.*
Image polarity used in display: *Both* Image polarity evaluated: *Both*	

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Table 75 Character height	PASS/FAIL/(N/A:not applicable)/*(with comments)
Pass/Fail criterion based on requirements and intended context of use.	*PASS*

Depending on the type of information shown, the visual display shall fulfil the following requirements.

a) Artificial information

For Latin-origin characters, the minimum character height shall be 16' of arc at the design viewing distance. The preferred character height is 20' to 22' of arc.

Measuring method :	*ISO 9241-305, P20.5*
Assessment and reporting	*Refer to following*

Measure the character height in millimeters and calculate the character height in minutes of arc at the design viewing distance. Report the resulting value for passed or failed.

Report the font used as well as the number of pixels, NH,Height, in the height of an unaccented, uppercase letter H.

Evaluate the default mode and report the character height in millimeters, character height in minutes of arc, the font used and the character height number, NH,Height.

$$Character\ Height\ (\psi) = \frac{180 x 60 x V_{pitch} x N_{H,Height}}{\pi x Dview}$$

Font type:	*Large Arial 10*
Vpitch =	*0.270 mm/pixel*
$N_{H,Height}$ =	*12 pixels*
Dview =	*500.0 mm*
Chr (Ψ) =	*22.3'*

Table 75 Text size constancy	PASS/FAIL/(N/A:not applicable)/*(with comments)	*N/A*

Table 75 Character stroke width	PASS/FAIL/(N/A:not applicable)/*(with comments)
Pass/Fail criterion based on requirements and intended context of use.	*PASS*

Depending on the type of information shown, the visual display shall fulfil the following requirement.

a) Artificial information

for Latin-origin characters, the stroke width shall be within the range of 10% to 17% of character height.

Measuring method :	*ISO 9241-305, P20.7*
Assessment and reporting	*Evaluate the character matrix and calculate the character stroke width.*

$$10\% x N_{H,Height} \le \frac{N_{H,hz\_stroke} + N_{H,vt\_stroke}}{2} \le 17\% x N_{H,Height}$$

$$A \le Average\ of\ Stroke\ Width \le B$$

Average of stroke width (mm)= *0.54 mm*

Average of stroke width (%) = 16.7%

Table 75 character width to height ratio	PASS/FAIL/(N/A:not applicable)/*(with comments)
Pass/Fail criterion based on requirements and intended context of use.	*PASS*

Depending on the type of information shown, the visual display shall fulfil the following requirement.

a) Artificial information

1) The character width to height ratio shall be within the range from 0.5:1 to 1:1.

2) A character width to height ratio of from 0.7:1 to 0.9:1 is recommended.

Measuring method :	*ISO 9241-305, P20.8*
Assessment and reporting	*Evaluate the character matrix and calculate the character width to height ratio.*

$N_{H,width}$: *9 pixels*

$N_{H,height}$: *12 pixels*

Ratio: *0.75*

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Table 75 Character format	PASS/FAIL/(N/A:not applicable)/*(with comments)
Pass/Fail criterion based on requirements and intended context of use.	*PASS*
Depending on the type of information shown, the visual display shall fulfil the following requirement.	
Measuring method :	*ISO 9241-305*
Assessment and reporting	*Evaluate the character matrix and information (width to width) below.*

1) For Latin-origin characters, the minimum character matrix for continuous reading is 7 × 9.
2) For Latin-origin characters, the minimum character matrix for numeric and upper-case-only presentations is 5 × 7.
3) For Latin-origin characters, the character matrix shall be increased upwards by at least two pixels if diacritics are used.
4) If lower case is used with Latin-origin characters, the character matrix shall be increased downwards by at least two pixels.
5) For Latin-origin characters and for higher density character matrices, the number of pixels used for diacritics should follow conventional designs for printed text.
6) For Latin-origin characters, a 4 × 5 character matrix shall be the minimum used for subscripts and superscripts, and for numerators and denominators of fractions displayed in a single character position.
7) For Latin-origin characters, the 4 × 5 matrix may also be used for alphanumeric information not related to the operator's task, such as copyright information.
8) For Japanese characters, a minimum matrix of 11 × 11 elements is recommended, whereas a matrix of 15 × 15 elements is preferred.

Font type used during evaluation: *Large Arial 10*
Resolution: *1920x1200*
Character matrix: *12x9*

Table 75 Between-character spacing	PASS/FAIL/(N/A:not applicable)/*(with comments)
Pass/Fail criterion based on requirements and intended context of use.	*PASS*
Depending on the type of information shown, the visual display shall fulfil the following requirement. a) Artificial information The minimum between-character spacing shall be one stroke width or one pixel.	
Measuring method :	*ISO 9241-305, P20.12*
Assessment and reporting	*Evaluate the character matrix and report the between-character spacing.*
The spacing between-character is:	*2 pixels*

Table 75 Between-word spacing	PASS/FAIL/(N/A:not applicable)/*(with comments)
Pass/Fail criterion based on requirements and intended context of use.	*PASS*
Depending on the type of information shown, the visual display shall fulfil the following requirement. a) Artificial information The minimum number of pixels between words shall be the number of pixels in the width of an unaccented upper-case letter H. The number of pixels in the width of the letter N shall be used for proportionally spaced fonts.	
Measuring method :	*ISO 9241-305, P20.13*
Assessment and reporting	*Evaluate the character matrix and report the between-character spacing.*
The spacing between-word is:	*6 pixels*

Table 75 Between-line spacing	PASS/FAIL/(N/A:not applicable)/*(with comments)
Pass/Fail criterion based on requirements and intended context of use.	*PASS*
Depending on the type of information shown, the visual display shall fulfil the following requirement. a) Artificial information For tasks that require continuous reading of text, a minimum of one pixel shall be used for spacing between lines of text. This area shall not contain parts of characters or diacritics, but may contain underscores.	
Measuring method :	*ISO 9241-305, P20.14*
Assessment and reporting	*Evaluate the character matrix and report the between-character spacing.*
The spacing between-word is:	*1 pixels*

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Table 76 Luminance coding	PASS/FAIL/(N/A:not applicable)/*(with comments)
Pass/Fail criterion based on requirements and intended context of use.	*PASS**
Depending on the type of information shown, the visual display shall fulfil the following requirement. a) Artificial information Over all relevant viewing directions (see design viewing direction), the ratio between area-luminances of adjacent levels of a single area shall exceed 1.5:1 under ambient illumination.	
Measuring method :	*ISO 9241-305, P17.6*
Assessment and reporting	*Refer to table 78(information below)*

Table 78- Assessment and reporting for luminance coding

Ratio	Ratio	Requirement	PASS/FAIL
L2/L1	*2.49 ±0.19*	≥ 1.5	*PASS*
L3/L2	*1.94 ±0.15*	≥ 1.5	*PASS*

*Absolute luminance coding only suitable apply for design viewing direction.

Table 79 Blink coding	PASS/FAIL/(N/A:not applicable)/*(with comments)
Pass/Fail criterion based on requirements and intended context of use.	*N/A*
Depending on the type of information shown, the visual display should meet the following recommendations.	
Measuring method :	*ISO 9241-305, P15.5*
Assessment and reporting	*Applicable only in software applications.*

Table 79 Color coding	PASS/FAIL/(N/A:not applicable)/*(with comments)
Pass/Fail criterion based on requirements and intended context of use.	*PASS*
Depending on the type of information shown, the visual display shall fulfil the following requirement. a) Artificial information Over all relevant viewing directions (see design viewing direction), coded colours shall have a minimum colour difference of ΔE*uv ≥ 20 under ambient illumination.	
Measuring method :	*ISO 9241-305, P19.4, P19.4a*
Assessment and reporting	*Refer to Table 80*

Table80 - Assessment and reporting for colour coding

Color n=	$Y_{Es,colour-n(CL-7)}$	$u'_{Es,colour-n(CL-7)}$	$v'_{Es,colour-n(CL-7)}$	$L^*_{Es,colour-n(CL-7)}$	$u^*_{Es,colour-n(CL-7)}$	$v^*_{Es,colour-n(CL-7)}$
0	*0.7 ±0.2*	-	-	*2.4 ±0.9*	-	-
1	*55.3 ±2.9*	*0.437 ±0.028*	*0.525 ±0.005*	*53.9 ±1.7*	*167.8 ±21.6*	*45.9 ±13.7*
2	*178.8 ±9.0*	*0.122 ±0.008*	*0.566 ±0.002*	*87.4 ±2.4*	*-86.0 ±14.5*	*121.5 ±21.8*
3	*17.6 ±1.1*	*0.187 ±0.012*	*0.139 ±0.008*	*31.8 ±1.2*	*-4.5 ±6.2*	*-132.3 ±9.9*
4	*250.0 ±12.5*	*0.198 ±0.012*	*0.459 ±0.007*	*99.6 ±2.7*	*0.1 ±19.9*	*0.0 ±26.0*
5	*195.7 ±9.8*	*0.140 ±0.009*	*0.444 ±0.008*	*90.5 ±2.5*	*-67.2 ±15.2*	*-18.5 ±23.9*
6	*72.4 ±3.8*	*0.301 ±0.017*	*0.313 ±0.010*	*60.5 ±1.8*	*81.1 ±15.7*	*-114.8 ±17.1*
7	*233.3 ±11.7*	*0.201 ±0.013*	*0.556 ±0.003*	*97.0 ±2.7*	*4.1 ±20.6*	*122.3 ±24.2*
8	*128.8 ±6.5*	*0.196 ±0.012*	*0.462 ±0.007*	*76.7 ±2.2*	*-1.0 ±15.4*	*2.5 ±20.0*
9	*10.9 ±0.7*	*0.426 ±0.034*	*0.520 ±0.006*	*24.7 ±1.1*	*73.4 ±11.7*	*19.6 ±6.4*
10	*36.5 ±2.0*	*0.123 ±0.010*	*0.565 ±0.002*	*44.9 ±1.5*	*-43.2 ±7.9*	*61.7 ±11.3*
11	*4.0 ±0.4*	*0.184 ±0.014*	*0.156 ±0.013*	*13.1 ±1.0*	*-2.4 ±2.9*	*-51.7 ±5.7*
12	*51.8 ±2.7*	*0.195 ±0.013*	*0.464 ±0.007*	*52.4 ±1.6*	*-2.0 ±10.8*	*2.9 ±13.7*
13	*40.2 ±2.2*	*0.140 ±0.010*	*0.448 ±0.008*	*46.8 ±1.5*	*-34.7 ±8.3*	*-7.0 ±12.5*
14	*14.7 ±0.9*	*0.297 ±0.019*	*0.320 ±0.012*	*29.0 ±1.2*	*37.5 ±8.2*	*-52.7 ±8.6*
15	*47.7 ±2.5*	*0.197 ±0.014*	*0.556 ±0.003*	*50.5 ±1.6*	*-0.5 ±11.1*	*63.7 ±12.7*

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Calculate delta E*uv for all colour pairs										Min. Δu'v':		23.1 ± 5.1		
Color n=	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1															
2		266.9 ± 25.8													
3		248.8 ± 19.7	272.3 ± 22.8												
4		179.7 ± 28.4	149.4 ± 31.0	148.8 ± 24.8											
5		246.4 ± 26.2	141.2 ± 32.2	142.6 ± 21.9	70.4 ± 25.7										
6		182.6 ± 23.1	290.6 ± 25.6	92.0 ± 16.2	145.8 ± 28.3	179.4 ± 24.0									
7		185.7 ± 28.7	90.6 ± 25.0	263.0 ± 25.3	122.4 ± 35.5	158.0 ± 32.4	251.9 ± 29.0								
8		175.7 ± 26.2	146.6 ± 26.9	142.2 ± 21.2	23.1 ± 5.1	70.9 ± 22.3	144.1 ± 24.8	121.6 ± 30.9							
9		102.3 ± 23.0	199.3 ± 18.9	170.8 ± 12.1	106.6 ± 16.7	159.8 ± 17.9	139.2 ± 17.7	143.4 ± 21.3	92.3 ± 16.1						
10		211.7 ± 23.0	85.0 ± 19.2	198.2 ± 14.8	93.1 ± 21.3	95.3 ± 22.7	216.4 ± 19.5	92.8 ± 20.8	79.3 ± 19.5	125.5 ± 13.8					
11		200.3 ± 19.9	206.2 ± 19.8	82.7 ± 11.1	100.8 ± 13.9	106.3 ± 12.3	114.8 ± 15.3	193.3 ± 22.4	83.6 ± 13.6	104.6 ± 10.5	124.6 ± 11.8				
12		175.1 ± 23.9	149.5 ± 22.8	136.8 ± 16.7	47.4 ± 3.8	78.5 ± 17.3	144.3 ± 21.0	127.6 ± 26.1	24.3 ± 2.9	82.0 ± 14.9	72.2 ± 16.4	67.3 ± 12.1			
13		209.4 ± 22.8	144.1 ± 23.1	129.8 ± 15.6	63.6 ± 12.5	55.7 ± 11.8	158.8 ± 19.3	144.0 ± 25.2	46.0 ± 13.8	113.5 ± 14.0	69.2 ± 16.7	64.7 ± 10.5	34.6 ± 13.9		
14		165.2 ± 20.6	221.4 ± 20.6	90.1 ± 12.5	95.7 ± 17.4	126.2 ± 16.0	82.1 ± 17.3	190.7 ± 23.9	82.5 ± 16.8	80.8 ± 11.5	140.9 ± 13.2	42.9 ± 8.1	72.1 ± 14.5	87.3 ± 12.5	
15		169.3 ± 24.2	109.6 ± 19.5	197.0 ± 16.0	80.4 ± 23.0	113.1 ± 22.6	196.5 ± 20.9	74.9 ± 21.5	66.5 ± 21.8	89.9 ± 15.0	43.0 ± 13.6	121.4 ± 13.2	60.8 ± 18.7	78.6 ± 17.1	124.3 ± 14.9

Table 81 Geometrical coding	PASS/FAIL/(N/A:not applicable)/*(with comments)
Pass/Fail criterion based on requirements and intended context of use.	*N/A*
Depending on the type of information shown, the visual display should meet the following recommendation. a) Artificial information Geometrical coding is a particular type of graphical coding. The distinction of different classes of information in a graph may be facilitated by the use of different geometrical shapes, such as triangles or circles. These shapes should be easy to distinguish, which means that their number should be limited.	
Measuring method :	*Not applicable*
Assessment and reporting	*Applicable only in software applications.*

Table 82 Monochrome and multicolour object size	PASS/FAIL/(N/A:not applicable)/*(with comments)
Pass/Fail criterion based on requirements and intended context of use.	*N/A*
Depending on the type of information shown, the visual display should meet the following requirements. a) Artificial information 1) Critical details, such as symbols or text within the icon, should have a minimum height of 20 ´ of arc. Heights subtending 25'of arc to 35'of arc are preferred. 2) For graphical objects and other small objects where legibility is the primary concern, refer to luminance contrast. 3) For isolated images where accurate colour identification is required, the image shall subtend 30'of arc; 45'of arc is preferred.	
Measuring method :	*See character height, luminance contrast.*
Assessment and reporting	*Applicable only in software applications.*

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Table 82 Contrast for object legibility	PASS/FAIL/(N/A:not applicable)/*(with comments)
Pass/Fail criterion based on requirements and intended context of use.	*N/A*
Depending on the type of information shown, the visual display should meet the following requirements. a) Artificial information Where accurate identification of an isolated, multicolour image (e.g. a single character or a symbol) is required, the same conditions for display luminance and luminance contrast shall apply.	
Measuring method :	*See display luminance, luminance contrast.*
Assessment and reporting	*Applicable only in software applications.*

Table 82 colour considerations for graphics	PASS/FAIL/(N/A:not applicable)/*(with comments)
Pass/Fail criterion based on requirements and intended context of use.	*N/A*
Depending on the type of information shown, the visual display should meet the following recommendation. a) Artificial information 1) Where accurate colour identification of characters or symbols is required, the minimum size of them shall be at least 20' of arc at the design viewing distance. 2) When an application requires the user to discriminate or identify colours, it shall offer a default set of colours. 3) Colour pairs that are to be discriminated shall have values of *ΔEuv > 20. 4) Negative polarity, Spectrally extreme blue (v' < 0,2) on a dark background shall not be used. Spectrally extreme red (u' > 0,4) shall not be used on a spectrally extreme blue (v' < 0,2) background. 5) Positive polarity, Spectrally extreme blue (v' < 0,2) shall not be used on a spectrally extreme red (u' > 0,4) background. Spectrally extreme red (u' >0,4) shall not be used on a spectrally extreme blue (v' < 0,2) background.	
Measuring method :	*See character height, colour coding. ISO 9241-305, 19.1*
Assessment and reporting	*Applicable only in software applications.*

Table 82 Background and surrounding image effects	PASS/FAIL/(N/A:not applicable)/*(with comments)
Pass/Fail criterion based on requirements and intended context of use.	*N/A*
Depending on the type of information shown, the visual display should meet the following requirements. a) Artificial information To better discriminate and identify colours, systems and applications should use an achromatic background behind chromatic foreground image colours or achromatic foreground image colours on chromatic backgrounds.	
Measuring method :	*Not applicable.*
Assessment and reporting	*Applicable only in software applications.*

Table 82 Number of colours	PASS/FAIL/(N/A:not applicable)/*(with comments)
Pass/Fail criterion based on requirements and intended context of use.	*N/A*
Depending on the type of information shown, the visual display should meet the following requirements. a) Artificial information 1) Simultaneous colour presentation: for accurate identification, the default colour set(s) for colour coding should consist of no more than eleven colours for each set. 2) Visual search for colour images: when a rapid visual search based on colour discrimination is required, no more than six colours should be used. 3) Colour interpretation from memory: if the meaning of each colour of a set of colours is to be recalled from memory, no more than six colours should be used.	
Measuring method :	*Not applicable.*
Assessment and reporting	*Applicable only in software applications.*

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Table 83 Colour gamut and reference white	PASS/FAIL/(N/A:not applicable)/*(with comments)
Pass/Fail criterion based on requirements and intended context of use.	*PASS*

Depending on the type of information shown, the visual display should meet the following requirements.

a) Artificial information

1) Colour gamut: Over all relevant viewing directions (see design viewing direction), the chromaticity diagram area under ambient illumination shall exceed a minimum of 5 % of the total area of the CIE 1976 UCS chromaticity diagram, centred about the chromaticity of the reference white.

2) Reference white: A reference white shall be displayable on the visual display with a maximum deviation of the correlated colour temperature of ± 500 K. Preferred correlated colour temperatures are e.g.5 000 K, 5 500 K, 6 500 K, 7 500 K and/or 9 300 K.

3) The reference white shall be adjustable by the user.

Measuring method :	*ISO 9241-305, P19.7, P19.15*
Assessment and reporting	*Refer to Table 84 a) 1), Table 84 a)2), a)3)*

Table 84 a)1) Color gamut under ambient illuminant condition (In %)				Result *PASS*
CLn	R/G/B Es	u'Es	v'Es	Gamut
CL1	R_Es	*0.437 ±0.029*	*0.525 ±0.005*	*34.1* ± 3.3
	G_Es	*0.121 ±0.008*	*0.567 ±0.002*	
	B_Es	*0.187 ±0.012*	*0.138 ±0.008*	
CL2	R_Es	*0.437 ±0.028*	*0.525 ±0.005*	*34.0* ± 3.3
	G_Es	*0.121 ±0.008*	*0.567 ±0.002*	
	B_Es	*0.187 ±0.012*	*0.139 ±0.008*	
CL3	R_Es	*0.440 ±0.029*	*0.526 ±0.005*	*34.5* ± 3.4
	G_Es	*0.121 ±0.008*	*0.567 ±0.002*	
	B_Es	*0.187 ±0.012*	*0.137 ±0.008*	
CL4	R_Es	*0.439 ±0.029*	*0.525 ±0.005*	*34.5* ± 3.4
	G_Es	*0.121 ±0.008*	*0.567 ±0.002*	
	B_Es	*0.187 ±0.012*	*0.137 ±0.008*	
CL5	R_Es	*0.439 ±0.029*	*0.525 ±0.005*	*34.4* ± 3.4
	G_Es	*0.121 ±0.008*	*0.567 ±0.002*	
	B_Es	*0.186 ±0.012*	*0.138 ±0.008*	
CL6	R_Es	*0.439 ±0.029*	*0.525 ±0.005*	*34.3* ± 3.4
	G_Es	*0.121 ±0.008*	*0.567 ±0.002*	
	B_Es	*0.187 ±0.012*	*0.139 ±0.008*	
CL7	R_Es	*0.437 ±0.028*	*0.525 ±0.005*	*33.9* ± 3.3
	G_Es	*0.122 ±0.008*	*0.566 ±0.002*	
	B_Es	*0.186 ±0.012*	*0.140 ±0.008*	

Table 84 a)2, a)3) Reference White							Result:	PASS
Mode	Measured CCT		u'		v'		ΔCCT	Result
Warm	7094	± 755	0.198	±0.009	0.460	±0.019	N/A	N/A
Normal	7367	± 795	0.198	±0.009	0.456	±0.019	N/A	N/A
Cool	9978	± 1000	0.192	±0.009	0.439	±0.018	N/A	N/A
sRGB	6147	± 700	0.203	±0.010	0.469	±0.019	N/A	N/A
User	7105	± 755	0.198	±0.009	0.460	±0.019	N/A	N/A

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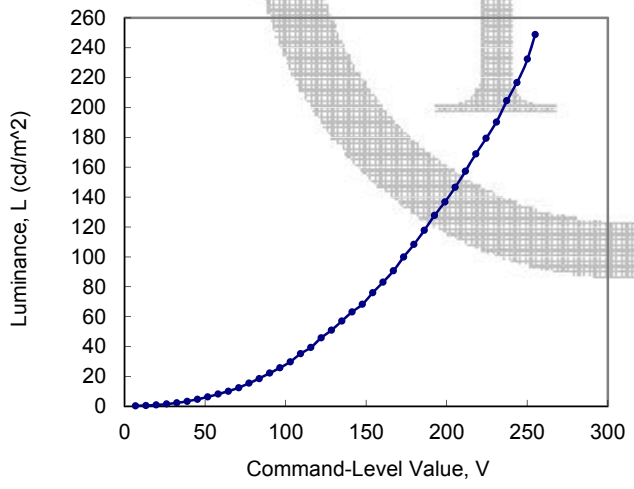
Table 85 **Electro-Optical transfer function (EOTF) and grey scale**	PASS/FAIL/(N/A:not applicable)/*(with comments)
Pass/Fail criterion based on requirements and intended context of use.	*PASS*
Depending on the type of information shown, the visual display shall fulfil the following requirements. a) Artificial information 1) Over all relevant viewing directions (see design viewing direction), the EOTF and its first derivative for each of the three primary colours shall be ascending in a monotonous way. 2) Over all relevant viewing directions (see design viewing direction), the chromaticity uniformity difference, Δu'v', between grey levels shall not exceed 0,04.	
Measuring method :	*ISO 9241-305, P14.1, P14.2, P17.5, P19.2, P19.3*
Assessment and reporting	*Refer to table 88, table 88 a) 1), table 88 a) 2).*

Table 88 a) 1) Assessment and reporting for EOTF.	
Gamma Value:	*1.9*
Correction coefficient:	*0.99*

Table 88 a) 2) Assessment and reporting for chromaticity uniformity.

%	RGB V	u'	v'	Maximum Δu'v' for chromaticity uniformity:			*0.006* ±0.026
100%	*255*	*0.197* ±0.009	*0.459* ±0.019	Levels	100%	75%	50%
75%	*192*	*0.196* ±0.009	*0.462* ±0.019	75%	*0.003* ±0.025		
50%	*128*	*0.195* ±0.009	*0.463* ±0.019	50%	*0.005* ±0.023	*0.002* ±0.020	
25%	*64*	*0.196* ±0.009	*0.458* ±0.019	25%	*0.003* ±0.022	*0.005* ±0.026	*0.006* ±0.026



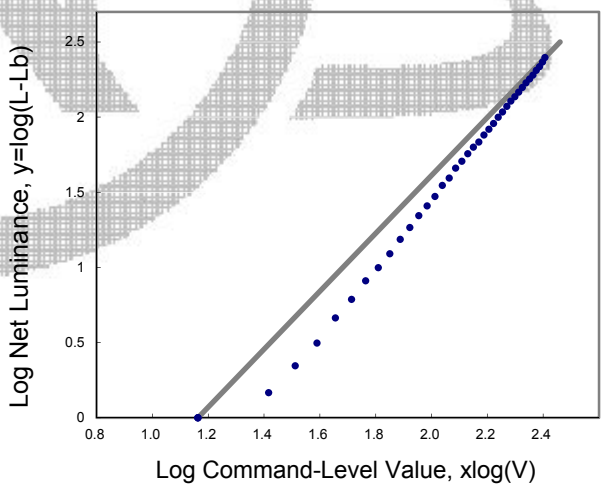


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Table 88 Measurement data for EOTF and Grey scale measurement.

Lb	0.1	Lum. L	Net Lum. L-Lb	Log (V)	Log (L-Lb)	u'	v'
Levels	RGB V						
Level 40	255	248.8 ± 12.5	248.7 ± 12.5	2.4	2.4	0.197 ±0.009	0.459 ±0.019
Level 39	250	232.4 ± 11.7	232.2 ± 11.7	2.4	2.4	0.197 ±0.009	0.461 ±0.019
Level 38	243	216.6 ± 10.9	216.5 ± 10.9	2.4	2.3	0.197 ±0.009	0.462 ±0.019
Level 37	237	204.5 ± 10.3	204.4 ± 10.3	2.4	2.3	0.197 ±0.009	0.462 ±0.019
Level 36	230	190.2 ± 9.6	190.1 ± 9.6	2.4	2.3	0.197 ±0.009	0.461 ±0.019
Level 35	224	179.4 ± 9.1	179.3 ± 9.1	2.4	2.3	0.196 ±0.009	0.462 ±0.019
Level 34	218	168.9 ± 8.6	168.8 ± 8.5	2.3	2.2	0.197 ±0.009	0.462 ±0.019
Level 33	211	157.3 ± 8.0	157.2 ± 8.0	2.3	2.2	0.196 ±0.009	0.462 ±0.019
Level 32	205	146.6 ± 7.5	146.5 ± 7.4	2.3	2.2	0.197 ±0.009	0.461 ±0.019
Level 31	198	136.7 ± 7.0	136.6 ± 7.0	2.3	2.1	0.196 ±0.009	0.462 ±0.019
Level 30	192	127.8 ± 6.5	127.7 ± 6.5	2.3	2.1	0.196 ±0.009	0.462 ±0.019
Level 29	186	117.8 ± 6.0	117.7 ± 6.0	2.3	2.1	0.197 ±0.009	0.462 ±0.019
Level 28	179	108.3 ± 5.6	108.2 ± 5.6	2.3	2.0	0.197 ±0.009	0.462 ±0.019
Level 27	173	99.9 ± 5.1	99.8 ± 5.1	2.2	2.0	0.196 ±0.009	0.463 ±0.019
Level 26	166	90.7 ± 4.7	90.5 ± 4.7	2.2	2.0	0.198 ±0.009	0.463 ±0.019
Level 25	160	83.1 ± 4.3	83.0 ± 4.3	2.2	1.9	0.197 ±0.009	0.463 ±0.019
Level 24	154	76.0 ± 4.0	75.9 ± 4.0	2.2	1.9	0.197 ±0.009	0.463 ±0.019
Level 23	147	68.3 ± 3.6	68.2 ± 3.6	2.2	1.8	0.197 ±0.009	0.462 ±0.019
Level 22	141	63.2 ± 3.3	63.1 ± 3.3	2.2	1.8	0.196 ±0.009	0.463 ±0.019
Level 21	134	57.1 ± 3.0	57.0 ± 3.0	2.1	1.8	0.196 ±0.009	0.464 ±0.019
Level 20	128	51.0 ± 2.7	50.8 ± 2.7	2.1	1.7	0.195 ±0.009	0.463 ±0.019
Level 19	122	45.9 ± 2.5	45.7 ± 2.5	2.1	1.7	0.195 ±0.009	0.464 ±0.019
Level 18	115	39.4 ± 2.2	39.2 ± 2.1	2.1	1.6	0.195 ±0.009	0.463 ±0.019
Level 17	109	35.2 ± 2.0	35.1 ± 1.9	2.0	1.5	0.194 ±0.009	0.464 ±0.019
Level 16	102	29.8 ± 1.7	29.7 ± 1.7	2.0	1.5	0.195 ±0.009	0.463 ±0.019
Level 15	96	25.8 ± 1.5	25.6 ± 1.5	2.0	1.4	0.194 ±0.009	0.463 ±0.019
Level 14	90	22.2 ± 1.3	22.1 ± 1.3	2.0	1.3	0.194 ±0.009	0.463 ±0.019
Level 13	83	18.5 ± 1.1	18.4 ± 1.1	1.9	1.3	0.194 ±0.009	0.463 ±0.019
Level 12	77	15.5 ± 1.0	15.4 ± 1.0	1.9	1.2	0.195 ±0.009	0.463 ±0.019
Level 11	70	12.4 ± 0.8	12.3 ± 0.8	1.9	1.1	0.194 ±0.009	0.462 ±0.019
Level 10	64	10.1 ± 0.7	10.0 ± 0.7	1.8	1.0	0.196 ±0.009	0.458 ±0.019
Level 9	58	8.3 ± 0.6	8.1 ± 0.6	1.8	0.9	0.195 ±0.009	0.460 ±0.019
Level 8	51	6.2 ± 0.5	6.1 ± 0.5	1.7	0.8	0.195 ±0.009	0.460 ±0.019
Level 7	45	4.7 ± 0.4	4.6 ± 0.4	1.7	0.7	0.194 ±0.009	0.454 ±0.019
Level 6	38	3.3 ± 0.4	3.1 ± 0.4	1.6	0.5	0.191 ±0.009	0.454 ±0.019
Level 5	32	2.3 ± 0.3	2.2 ± 0.3	1.5	0.3	0.197 ±0.009	0.453 ±0.019
Level 4	26	1.6 ± 0.3	1.5 ± 0.3	1.4	0.2	0.189 ±0.009	0.446 ±0.018
Level 3	19	0.9 ± 0.3	0.8 ± 0.3	1.3	-	-	-
Level 2	13	0.6 ± 0.2	0.4 ± 0.2	1.1	-	-	-
Level 1	6	0.3 ± 0.2	0.3 ± 0.2	0.8	-	-	-

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Table 91 Rendering of moving images	PASS/FAIL/(N/A:not applicable)/*(with comments)
Pass/Fail criterion based on requirements and intended context of use.	*PASS*
The visual display shall have sufficient temporal fidelity to show moving images without any blur, smear or other noticeable artefacts.	
Measuring method :	*ISO 9241-305*
Assessment and reporting	*Visual inspection*
Inspection result	*Any blur smear and other noticeable artefacts didn't found with visual inspection.*

Table 91 Colour misconvergence	PASS/FAIL/(N/A:not applicable)/*(with comments)
Pass/Fail criterion based on requirements and intended context of use.	*N/A*
The level of misconvergence at any location on the visual display shall not be greater than 3,4' of arc and preferably should be less than 2.3' of arc at the design viewing distance.	
Measuring method :	*ISO 9241-305, M21.8*
Assessment and reporting	*Not applicable.*

Table 91 Image formation time (IFT)	PASS/FAIL/(N/A:not applicable)/*(with comments)
Pass/Fail criterion based on requirements and intended context of use.	*PASS*

Depending on the image type, the IFT shall fulfil the following requirements.

a) Still images
Not applicable.

b) Quasi-static images
IFT > 200 ms:
Noticeable loss of contrast observed during key entry, scrolling, animation and blink coding. Pointing devices with rapid cursor positioning can be used only with special techniques.

55 ms < IFT ≤ 200 ms:
Applications using scrolling, animation and pointing devices lose detectable contrast. Blink coding from 0,33 Hz to 5 Hz is operable.

10 ms < IFT ≤ 55 ms:
Contrast is stable for most applications. Motion artefacts can be distracting

c) Moving images
IFT ≤ 10 ms:
However, for displays that keep displaying each part of the image over a large part of the frame period, the duration of the frame period is also a limiting factor. If the IFT or frame period duration is too long while the display produces the image during a large part of the frame period, then blurred or jerky images result, and contrast may be reduced.

Measuring method :	*ISO 9241-305, P15.2, P15.2A*
Assessment and reporting	*Refer to the response time measurement result below.*

Response Time measurement result				Result	*PASS*
Image application type:	*Still image and Quasi-static image.*				
IFT Criterion levels:	*10ms < IFT ≤ 55ms*				
Contrast is stable for most applications. Motion artefacts can be distracting.					

Levels	0%	25%	50%	75%	100%
0%	X X	*15.1 ± 0.7ms*	*14.8 ± 0.7ms*	*15.0 ± 0.7ms*	*18.5 ± 0.8ms*
25%	*15.1 ± 0.7ms*	X X	*18.9 ± 0.8ms*	*18.1 ± 0.8ms*	*19.1 ± 0.8ms*
50%	*14.8 ± 0.7ms*	*18.9 ± 0.8ms*	X X	*15.4 ± 0.7ms*	*16.9 ± 0.7ms*
75%	*15.0 ± 0.7ms*	*18.1 ± 0.8ms*	*15.4 ± 0.7ms*	X X	*14.1 ± 0.6ms*
100%	*18.5 ± 0.8ms*	*19.1 ± 0.8ms*	*16.9 ± 0.7ms*	*14.1 ± 0.6ms*	X X

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Table 91 Spatial resolution	PASS/FAIL/(N/A:not applicable)/*(with comments)
Pass/Fail criterion based on requirements and intended context of use.	*PASS**
a) Resolution of the visual display should enable a satisfying reproduction of the original image. The minimum resolution of the display should be (horizontal × vertical): — for VGA: ≥ 640 × 480; — for PAL: 768 × 576; — for NTSC: 720 × 480. b) The visual display should have a spatial resolution of less than 1 minute of arc at the design viewing distance. ***Not applicable to Design,View =500mm which is referred to EK1-ITB 2000:2016Annex 4.1.***	
Measuring method :	*Intended context of use/supplier specification, ISO 9241-305, P20.10*
Assessment and reporting	*Use the pixel size as a basis for evaluation of the spatial resolution.*
Display resolution:	*1920X1200*
Spatial resolution:	*1.9' (Horizontal) X 1.9' (Vertical)*

Table 91 Raster modulation	PASS/FAIL/(N/A:not applicable)/*(with comments)
Pass/Fail criterion based on requirements and intended context of use.	*N/A*
For visual displays having a pixel density of less than 30 pixels per degree at the design viewing distance, the luminance modulation in the direction perpendicular to adjacent raster lines shall not exceed Cm = 0,4 for monochrome displays or Cm = 0,7 for multicolour displays, when all pixels are in their high state.	
Measuring method :	*ISO 9241-305, P21.9*
Assessment and reporting	*Not applicable.*

Table 91 Fill factor	PASS/FAIL/(N/A:not applicable)/*(with comments)
Pass/Fail criterion based on requirements and intended context of use.	*PASS*
For a visual display having a pixel density of less than 30 pixels per degree at the design viewing distance, the fill factor shall exceed 0,3. The supplier shall submit the subpixel drawing or specify the fill factor.	
Measuring method :	*Supplier specification, ISO 9241-305, M21.10*
Assessment and reporting	*Pixels per degree are more than 30 pixels.*
Pixels per degree:	*32Pix./Deg.*

Table 91 Pixel density	PASS/FAIL/(N/A:not applicable)/*(with comments)
Pass/Fail criterion based on requirements and intended context of use.	*PASS*
The supplier shall specify the pixel density.	
Measuring method :	*Supplier specification*
Assessment and reporting	*94.1ppi (Horizontal) x 94.1ppi (Vertical)*