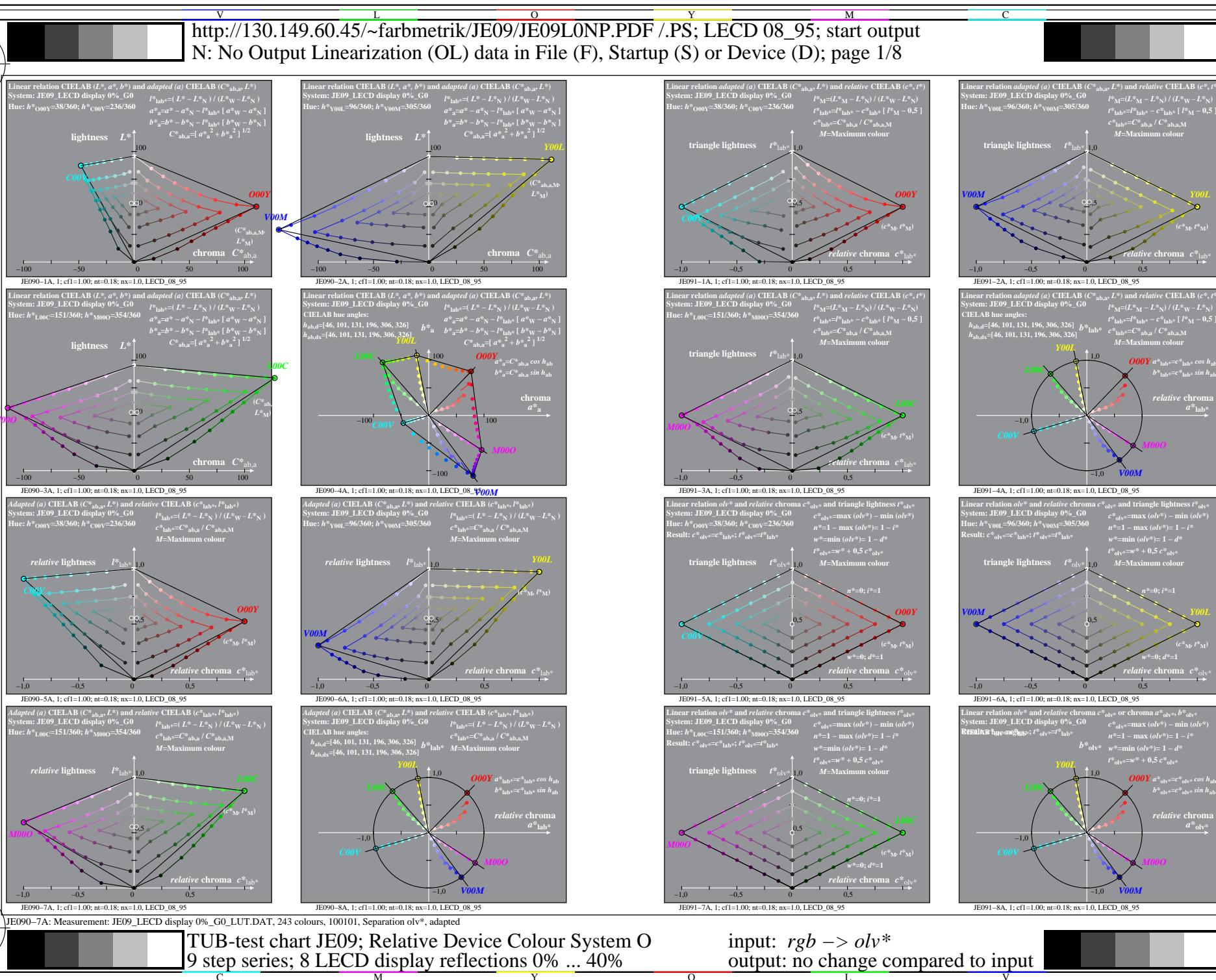


TUB registration: 20100101-JE09/JE09L0NP.PDF /PS

TUB application for evaluation and measurement of printer or monitor systems

TUB material: code=rha4ta



See original or copy: http://web.me.com/klaus_richter/JE09/JE09L0NP.PDF /PS
 Technical information: <http://www.ps.bam.de> V 2.1, io=1,1, Cx=0; cf1=0.95; nt=0.18; nx=1.0

TUB registration: 20100101-JE09/JE09L0NP.PDF /PS

TUB material: code=rha4ta

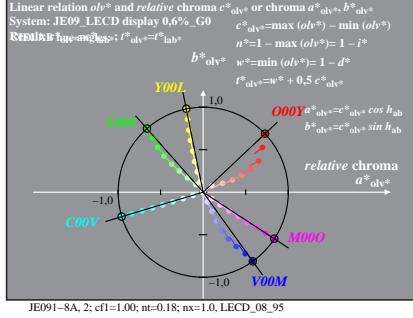
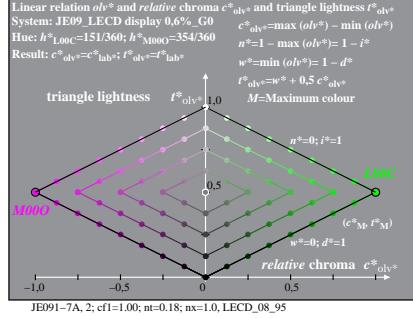
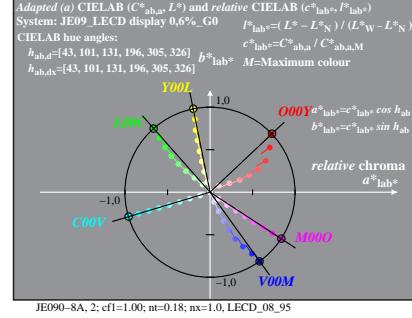
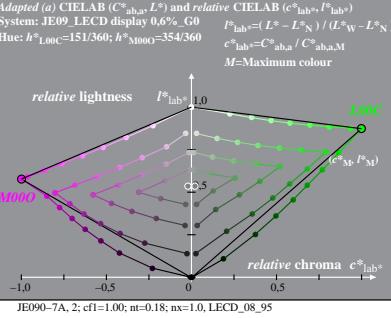
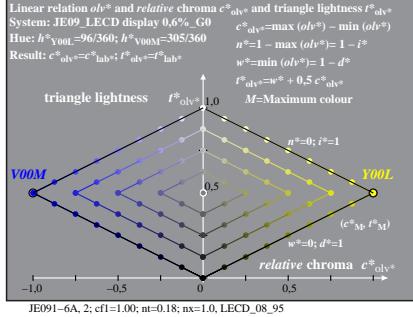
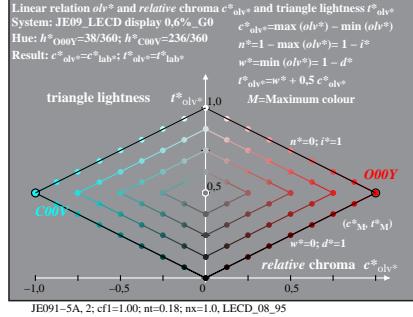
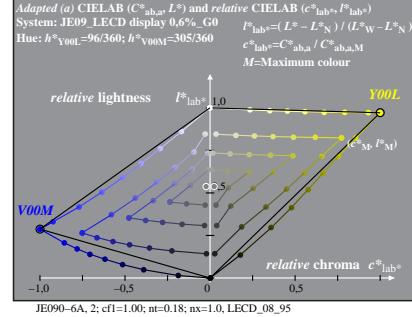
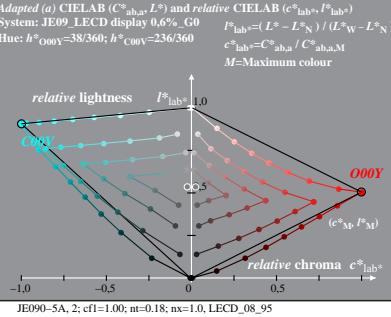
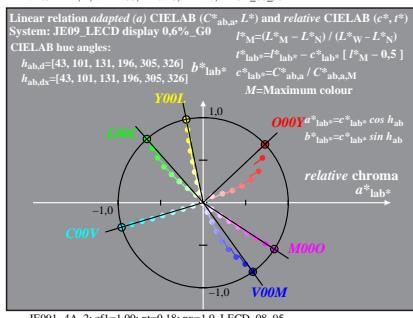
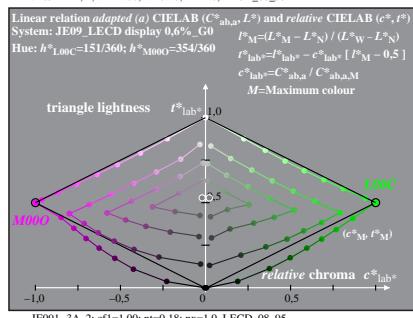
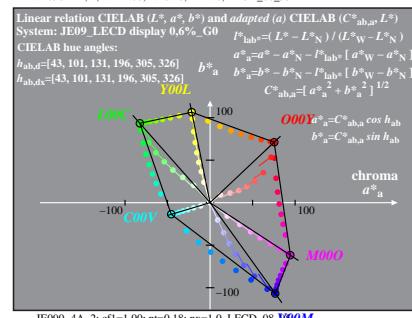
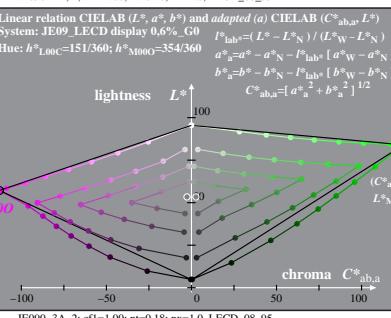
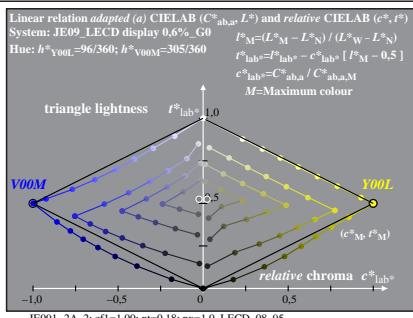
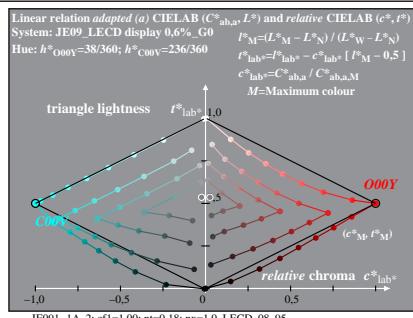
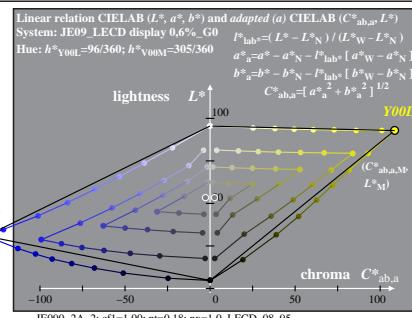
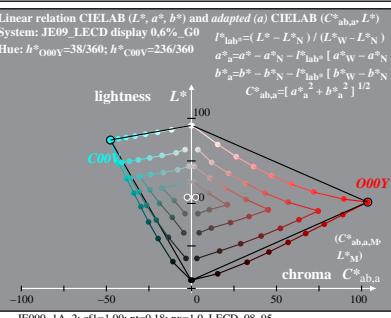


http://130.149.60.45/~farbmefrik/JE09/JE09L0NP.PDF /PS; LECD 08_95; start output
N: No Output Linearization (OL) data in File (F), Startup (S) or Device (D); page 2/8



See original or copy: http://web.me.com/klaus_richter/JE09/JE09L0NP.PDF /PS

Technical information: <http://www.ps.bam.de> V 2.1, io=1,1, Cx=0; cf1=0.95; nt=0.18; nx=1.0



JE09-7A: Measurement: JE09 LECD display 0.6%_G0_LUT.DAT, 243 colours, 100101, Separation olv^* , adapted

TUB-test chart JE09; Relative Device Colour System O
9 step series; 8 LECD display reflections 0% ... 40%

input: $rgb \rightarrow olv^*$
output: no change compared to input

TUB registration: 20100101-JE09/JE09L0NP.PDF /PS

application for evaluation and measurement of printer or monitor systems

TUB material: code=rha4ta

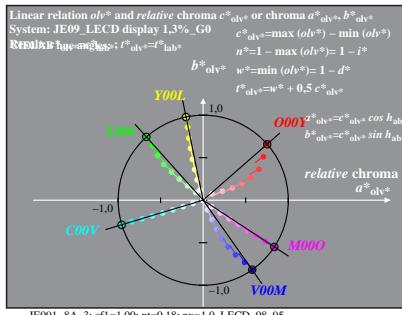
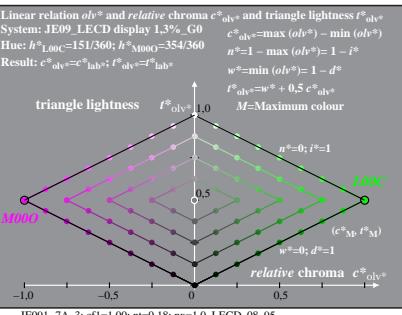
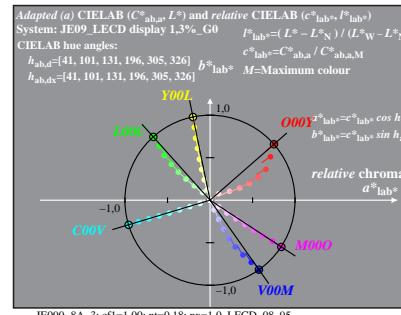
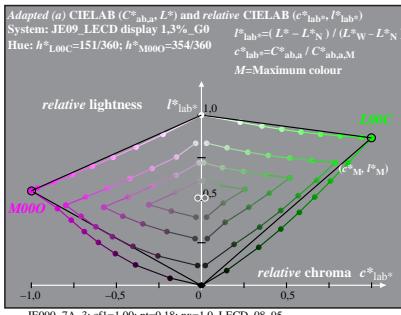
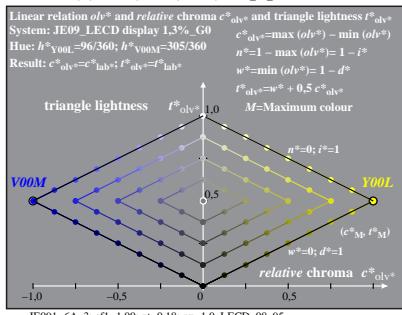
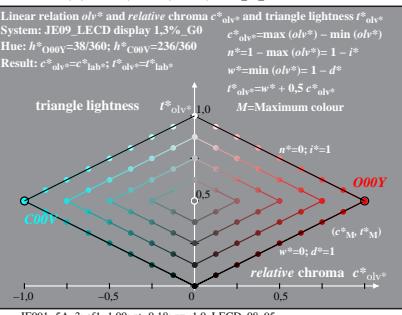
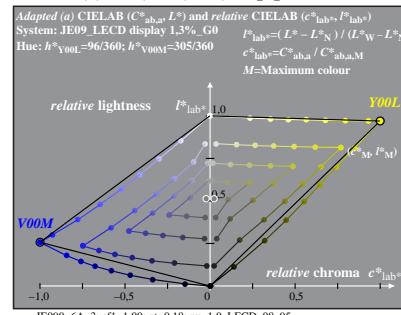
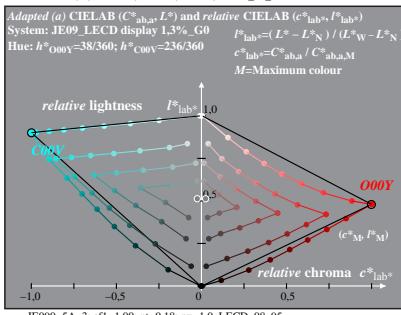
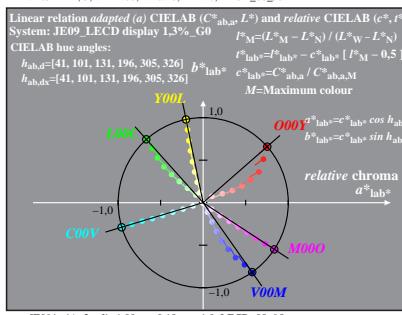
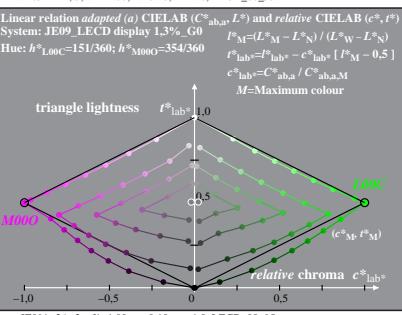
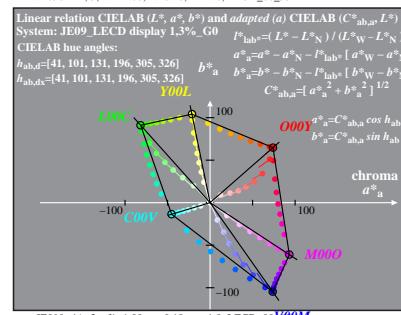
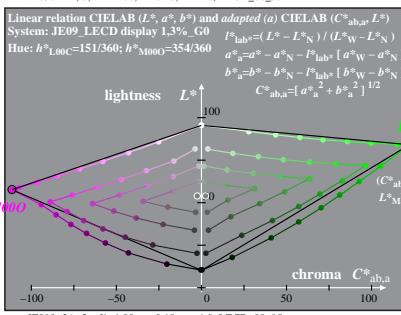
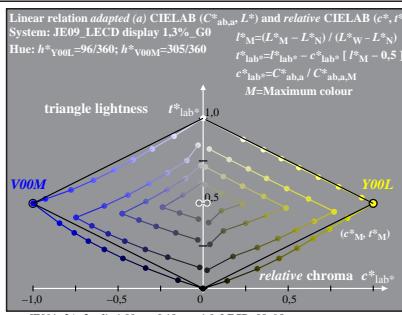
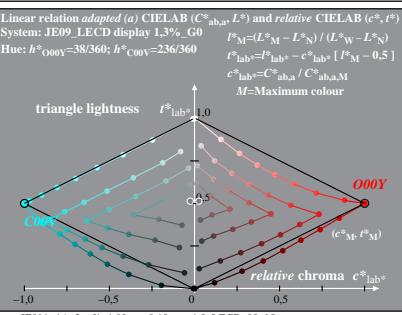
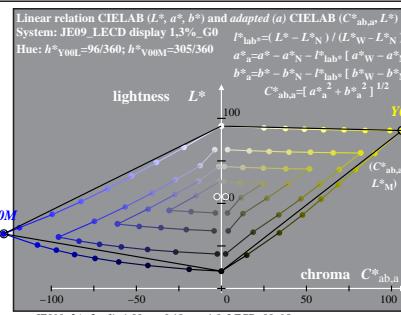
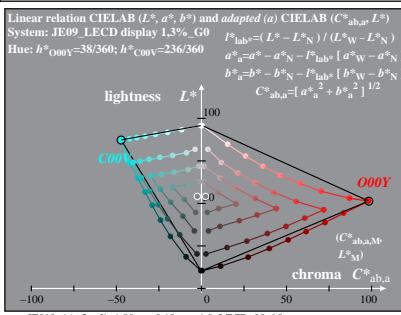
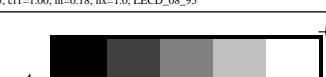


http://130.149.60.45/~farbmefrik/JE09/JE09L0NP.PDF /PS; LECD 08_95; start output
N: No Output Linearization (OL) data in File (F), Startup (S) or Device (D); page 3/8

See original or copy: http://web.me.com/klaus_richter/JE09/JE09L0NP.PDF /PS

Technical information: <http://www.ps.bam.de>

V 2.1, io=1,1, Cx=0; cf1=0.95; nt=0.18; nx=1.0



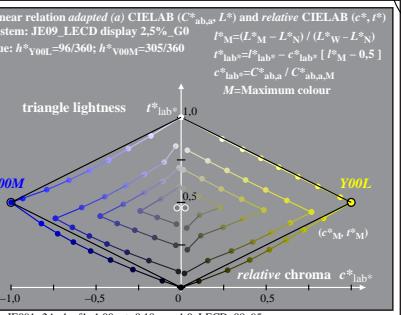
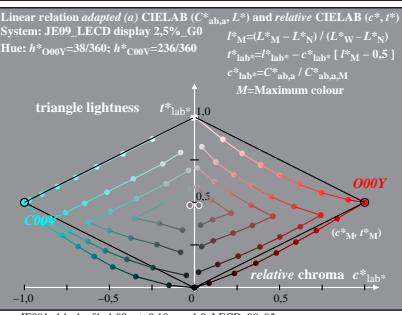
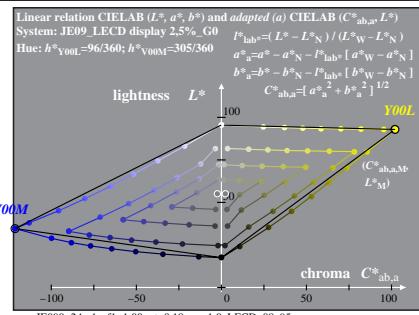
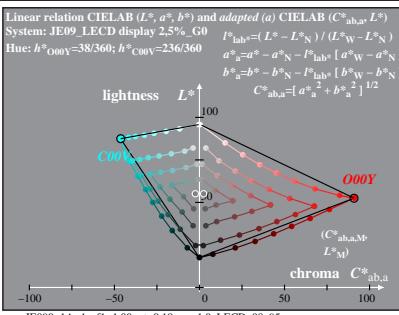
TUB-test chart JE09; Relative Device Colour System O
9 step series; 8 LECD display reflections 0% ... 40%

input: $rgb \rightarrow olv^*$
output: no change compared to input



<http://130.149.60.45/~farbmefrik/JE09/JE09L0NP.PDF> /PS; LECD 08_95; start output
N: No Output Linearization (OL) data in File (F), Startup (S) or Device (D); page 4/8

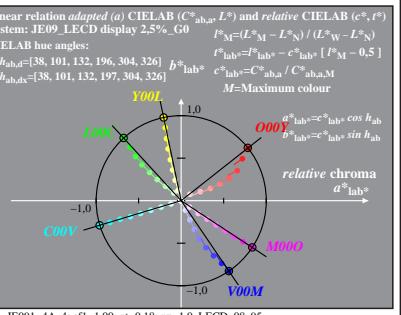
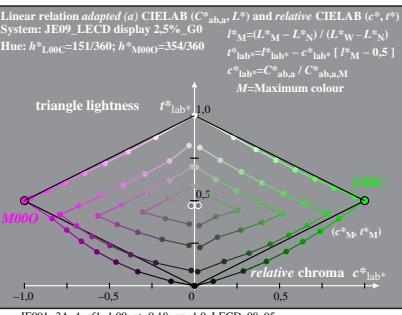
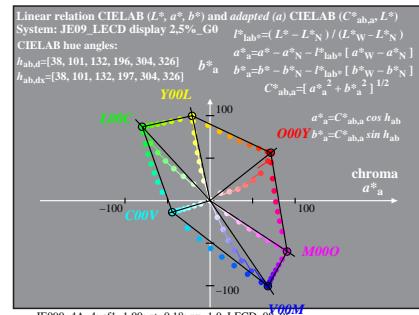
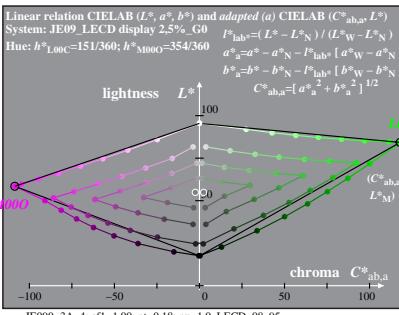
N: No Output Linearization (OL) data in File (F), Startup (S) or Device (D); page 4/8



-See original or copy: <http://web.me.com/klaus>
Technical information: <http://www.ps.bam.de>

.richter/JE09/JE09L0NP.PDF /PS
V 2.1, io=1, 1, Cx=0; cf1=0.95; nt

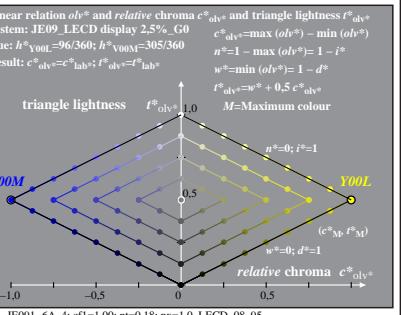
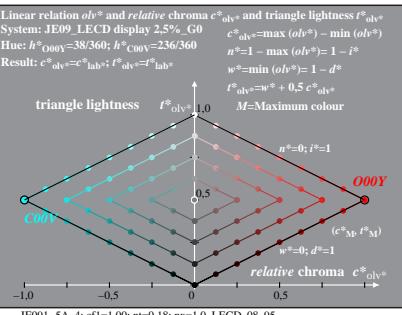
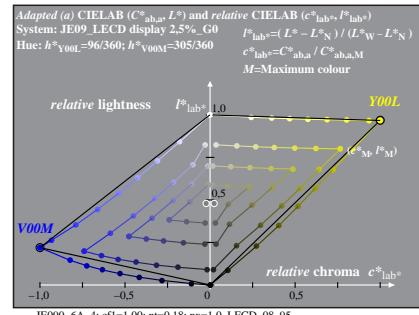
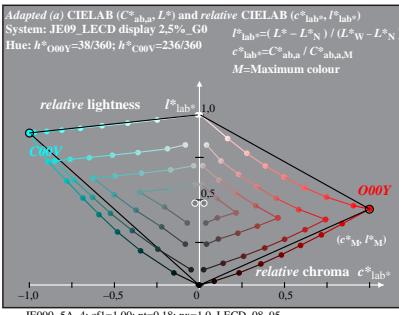
=0.18; nx=1.0



-See original or copy: <http://web.me.com/klaus>
Technical information: <http://www.ps.bam.de>

richter/JE09/JE09L0NP.PDF /PS V 2.1, io=1, 1, Cx=0; cf1=0.95; nt

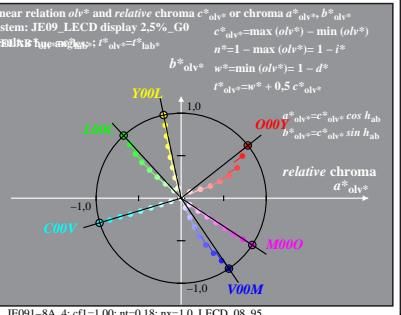
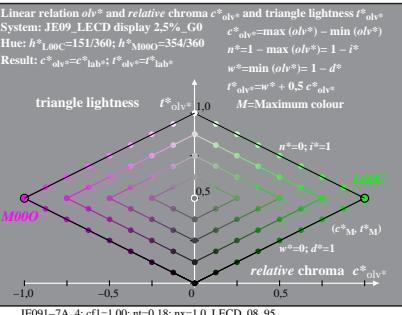
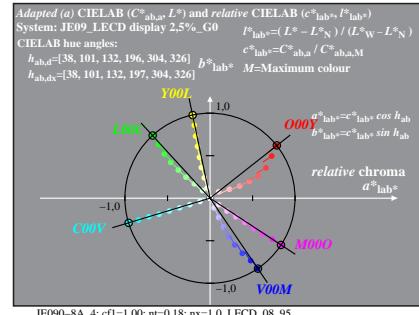
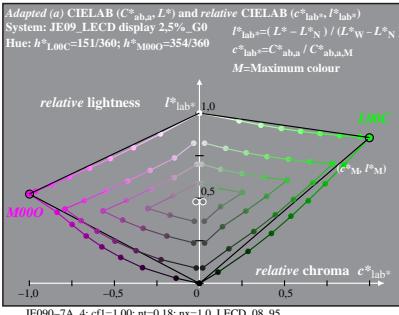
=0.18; nx=1.0



-See original or copy: <http://web.me.com/klaus>
Technical information: <http://www.ps.bam.de>

richter/JE09/JE09L0NP.PDF /PS V 2.1, io=1, 1, Cx=0; cf1=0.95; nt

=0.18; nx=1.0

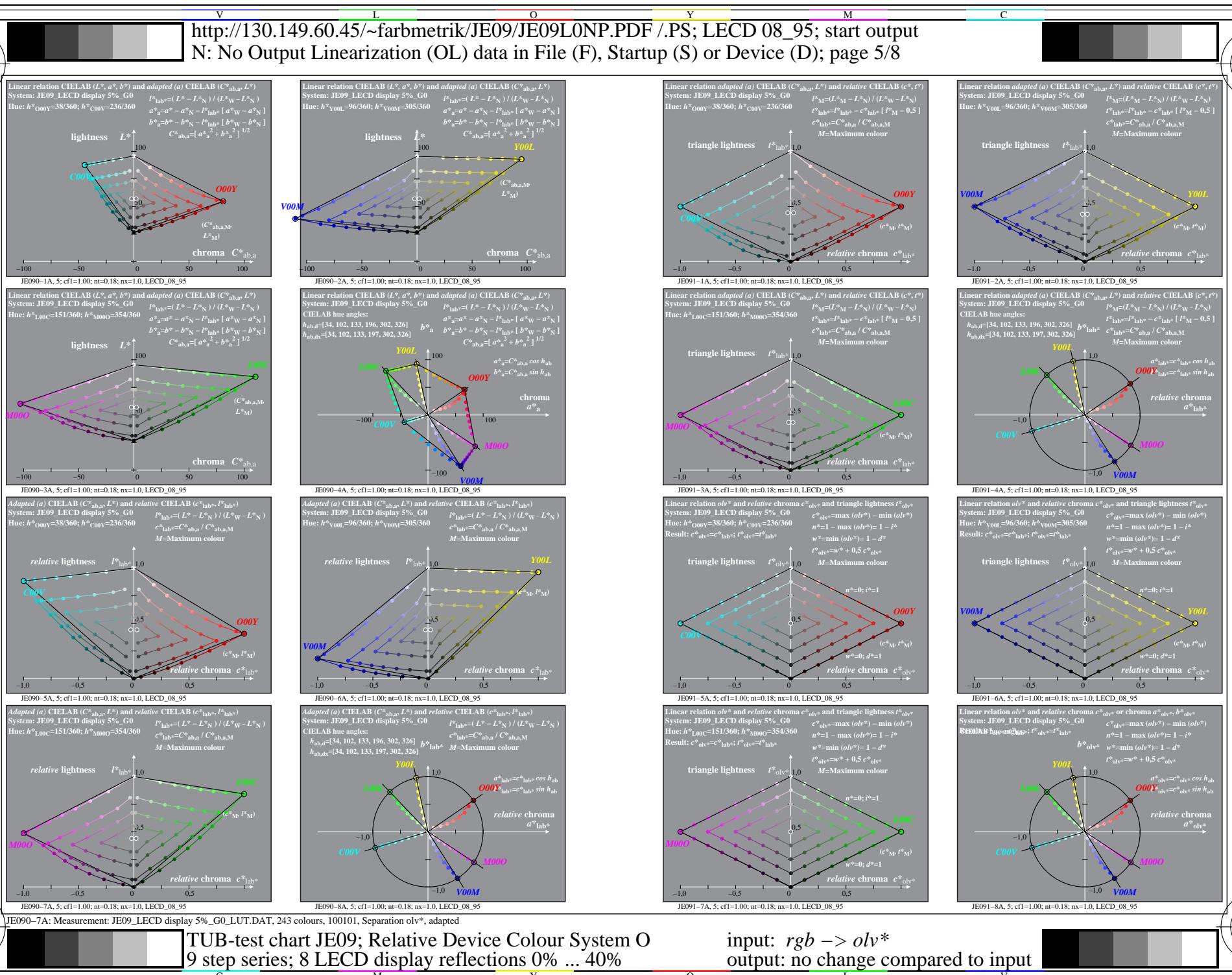


TUB-test chart JE09; Relative Device Colour System O
9 step series; 8 LECD display reflections 0% ... 40%

input: $rgb \rightarrow olv^*$
output: no change compared to input

TUB registration: 20100101-JE09/LECD_08_95.PDF /PS

TUB application for evaluation and measurement of printer or monitor systems



TUB-test chart JE09; Relative Device Colour System O
 9 step series; 8 LECD display reflections 0% ... 40%

input: $rgb \rightarrow olv^*$
 output: no change compared to input

TUB registration: 20100101-JE09/LECD_08_95.PDF /PS

TUB application for evaluation and measurement of printer or monitor systems

TUB material: code=rha4ta

<http://130.149.60.45/~farbmefrik/JE09/JE09L0NP.PDF/.PS>; LECD 08_95; start output

N: No Output Linearization (OL) data in File (F), Startup (S) or Device (D); page 6/8



See original or copy: http://web.me.com/klaus_richter/JE09/JE09L0NP.PDF/.PS

Technical information: <http://www.ps.bam.de>

V 2.1, io=1,1, Cx=0; cf1=0.95; nt=0.18; nx=1.0



Linear relation CIELAB (L^*, a^*, b^*) and adapted (a) CIELAB ($C^*_{ab,a}, L^*$)

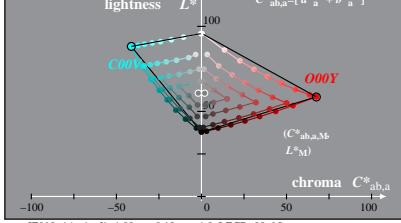
System: JE09 LECD display 10%_G0
Hue: $h^*_{Y00Y}=38/360$; $h^*_{C00V}=236/360$

$$I^*_{lab}=(L^*-L^*_{N})/(L^*_{W}-L^*_{N})$$

$$a^*_{ab}=a^*-a^*_{N}-I^*_{lab} \cdot [a^*_{W}-a^*_{N}]$$

$$b^*_{ab}=b^*-b^*_{N}-I^*_{lab} \cdot [b^*_{W}-b^*_{N}]$$

$$C^*_{ab,a}=[a^*_{ab}^2+b^*_{ab}^2]^{1/2}$$



JE090-1A; 6; cf1=1.00; nt=0.18; nx=1.0, LECD_08_95

Linear relation CIELAB (L^*, a^*, b^*) and adapted (a) CIELAB ($C^*_{ab,a}, L^*$)

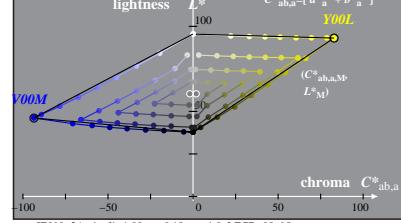
System: JE09 LECD display 10%_G0
Hue: $h^*_{Y00L}=96/360$; $h^*_{V00M}=305/360$

$$I^*_{lab}=(L^*-L^*_{N})/(L^*_{W}-L^*_{N})$$

$$a^*_{ab}=a^*-a^*_{N}-I^*_{lab} \cdot [a^*_{W}-a^*_{N}]$$

$$b^*_{ab}=b^*-b^*_{N}-I^*_{lab} \cdot [b^*_{W}-b^*_{N}]$$

$$C^*_{ab,a}=[a^*_{ab}^2+b^*_{ab}^2]^{1/2}$$



JE090-2A; 6; cf1=1.00; nt=0.18; nx=1.0, LECD_08_95

Linear relation CIELAB (L^*, a^*, b^*) and adapted (a) CIELAB ($C^*_{ab,a}, L^*$)

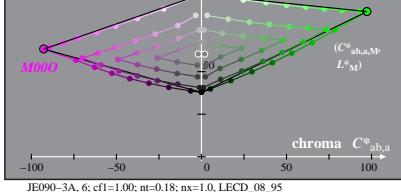
System: JE09 LECD display 10%_G0
Hue: $h^*_{Y00C}=151/360$; $h^*_{M000}=354/360$

$$I^*_{lab}=(L^*-L^*_{N})/(L^*_{W}-L^*_{N})$$

$$a^*_{ab}=a^*-a^*_{N}-I^*_{lab} \cdot [a^*_{W}-a^*_{N}]$$

$$b^*_{ab}=b^*-b^*_{N}-I^*_{lab} \cdot [b^*_{W}-b^*_{N}]$$

$$C^*_{ab,a}=[a^*_{ab}^2+b^*_{ab}^2]^{1/2}$$



JE090-3A; 6; cf1=1.00; nt=0.18; nx=1.0, LECD_08_95

Linear relation CIELAB (L^*, a^*, b^*) and adapted (a) CIELAB ($C^*_{ab,a}, L^*$)

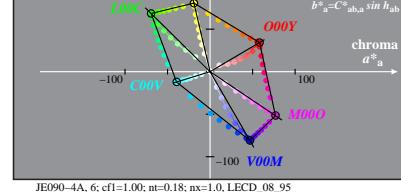
System: JE09 LECD display 10%_G0
Hue: $h^*_{Y00L}=151/360$; $h^*_{M000}=354/360$

$$I^*_{lab}=(L^*-L^*_{N})/(L^*_{W}-L^*_{N})$$

$$a^*_{ab}=a^*-a^*_{N}-I^*_{lab} \cdot [a^*_{W}-a^*_{N}]$$

$$b^*_{ab}=b^*-b^*_{N}-I^*_{lab} \cdot [b^*_{W}-b^*_{N}]$$

$$C^*_{ab,a}=[a^*_{ab} \cos h_{ab} + b^*_{ab} \sin h_{ab}]$$



JE090-4A; 6; cf1=1.00; nt=0.18; nx=1.0, LECD_08_95

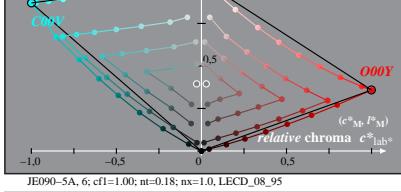
Adapted (a) CIELAB ($C^*_{ab,a}, L^*$) and relative CIELAB (c^*_{olv*}, I^*_{olv*})

System: JE09 LECD display 10%_G0
Hue: $h^*_{Y00Y}=38/360$; $h^*_{C00V}=236/360$

$$I^*_{lab}=(L^*-L^*_{N})/(L^*_{W}-L^*_{N})$$

$$c^*_{olv*}=C^*_{ab,a}/C^*_{aba,M}$$

M=Maximum colour



JE090-5A; 6; cf1=1.00; nt=0.18; nx=1.0, LECD_08_95

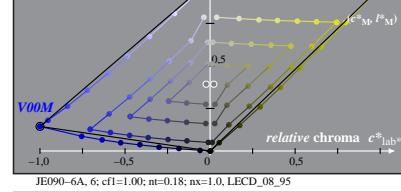
Adapted (a) CIELAB ($C^*_{ab,a}, L^*$) and relative CIELAB (c^*_{olv*}, I^*_{olv*})

System: JE09 LECD display 10%_G0
Hue: $h^*_{Y00L}=96/360$; $h^*_{V00M}=305/360$

$$I^*_{lab}=(L^*-L^*_{N})/(L^*_{W}-L^*_{N})$$

$$c^*_{olv*}=C^*_{ab,a}/C^*_{aba,M}$$

M=Maximum colour



JE090-6A; 6; cf1=1.00; nt=0.18; nx=1.0, LECD_08_95

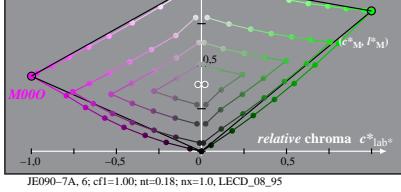
Adapted (a) CIELAB ($C^*_{ab,a}, L^*$) and relative CIELAB (c^*_{olv*}, I^*_{olv*})

System: JE09 LECD display 10%_G0
Hue: $h^*_{Y00C}=151/360$; $h^*_{M000}=354/360$

$$I^*_{lab}=(L^*-L^*_{N})/(L^*_{W}-L^*_{N})$$

$$c^*_{olv*}=C^*_{ab,a}/C^*_{aba,M}$$

M=Maximum colour



JE090-7A; Measurement: JE09 LECD display 10%_G0_LUT.DAT, 243 colours, 100101, Separation olv*, adapted

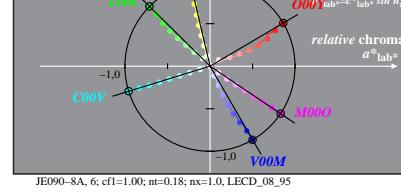
Adapted (a) CIELAB ($C^*_{ab,a}, L^*$) and relative CIELAB (c^*_{olv*}, I^*_{olv*})

System: JE09 LECD display 10%_G0
Hue: $h^*_{Y00L}=151/360$; $h^*_{M000}=354/360$

$$I^*_{lab}=(L^*-L^*_{N})/(L^*_{W}-L^*_{N})$$

$$c^*_{olv*}=C^*_{ab,a}/C^*_{aba,M}$$

M=Maximum colour



JE090-8A; 6; cf1=1.00; nt=0.18; nx=1.0, LECD_08_95

Linear relation adapted (a) CIELAB ($C^*_{ab,a}, L^*$) and relative CIELAB (c^*, I^*)

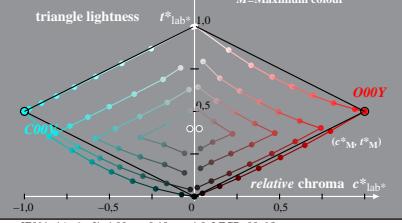
System: JE09 LECD display 10%_G0
Hue: $h^*_{Y00L}=96/360$; $h^*_{C00V}=236/360$

$$I^*_{lab}=(L^*-L^*_{N})/(L^*_{W}-L^*_{N})$$

$$a^*_{ab}=a^*-a^*_{N}-I^*_{lab} \cdot [a^*_{W}-a^*_{N}]$$

$$b^*_{ab}=b^*-b^*_{N}-I^*_{lab} \cdot [b^*_{W}-b^*_{N}]$$

$$C^*_{ab,a}=[a^*_{ab}^2+b^*_{ab}^2]^{1/2}$$



JE091-1A; 6; cf1=1.00; nt=0.18; nx=1.0, LECD_08_95

Linear relation adapted (a) CIELAB ($C^*_{ab,a}, L^*$) and relative CIELAB (c^*, I^*)

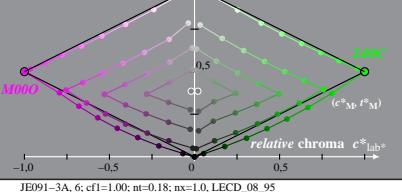
System: JE09 LECD display 10%_G0
Hue: $h^*_{Y00L}=96/360$; $h^*_{V00M}=305/360$

$$I^*_{lab}=(L^*-L^*_{N})/(L^*_{W}-L^*_{N})$$

$$a^*_{ab}=a^*-a^*_{N}-I^*_{lab} \cdot [a^*_{W}-a^*_{N}]$$

$$b^*_{ab}=b^*-b^*_{N}-I^*_{lab} \cdot [b^*_{W}-b^*_{N}]$$

$$C^*_{ab,a}=[a^*_{ab} \cos h_{ab} + b^*_{ab} \sin h_{ab}]$$



JE091-3A; 6; cf1=1.00; nt=0.18; nx=1.0, LECD_08_95

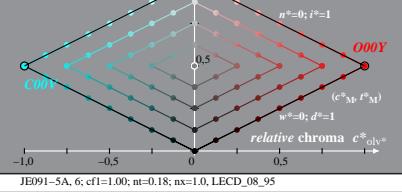
Linear relation adapted (a) CIELAB ($C^*_{ab,a}, L^*$) and relative CIELAB (c^*, I^*)

System: JE09 LECD display 10%_G0
Hue: $h^*_{Y00L}=96/360$; $h^*_{M000}=354/360$

$$I^*_{lab}=(L^*-L^*_{N})/(L^*_{W}-L^*_{N})$$

$$c^*_{olv*}=C^*_{ab,a}/C^*_{aba,M}$$

M=Maximum colour



JE091-5A; 6; cf1=1.00; nt=0.18; nx=1.0, LECD_08_95

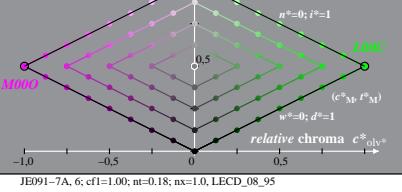
Linear relation olv* and relative chroma c^*_{olv*} and triangle lightness I^*_{olv*}

System: JE09 LECD display 10%_G0
Hue: $h^*_{Y00Y}=38/360$; $h^*_{C00V}=236/360$

$$c^*_{olv*}=\max(olv*) - \min(olv*)$$

$$n^*=1-\max(olv*)-1-i^*$$

$$w^*=\min(olv*)-1-d^*$$



JE091-6A; 6; cf1=1.00; nt=0.18; nx=1.0, LECD_08_95

Linear relation olv* and relative chroma c^*_{olv*} and triangle lightness I^*_{olv*}

System: JE09 LECD display 10%_G0
Hue: $h^*_{Y00L}=96/360$; $h^*_{V00M}=305/360$

$$c^*_{olv*}=\max(olv*) - \min(olv*)$$

$$n^*=1-\max(olv*)-1-i^*$$

$$w^*=\min(olv*)-1-d^*$$

$$I^*_{olv*}=W^*+0.5 \cdot C^*_{olv*}$$

M=Maximum colour



JE091-8A; 6; cf1=1.00; nt=0.18; nx=1.0, LECD_08_95

Linear relation adapted (a) CIELAB ($C^*_{ab,a}, L^*$) and relative CIELAB (c^*, I^*)

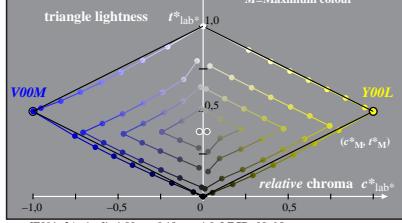
System: JE09 LECD display 10%_G0
Hue: $h^*_{Y00L}=96/360$; $h^*_{V00M}=305/360$

$$I^*_{lab}=(L^*-L^*_{N})/(L^*_{W}-L^*_{N})$$

$$a^*_{ab}=a^*-a^*_{N}-I^*_{lab} \cdot [a^*_{W}-a^*_{N}]$$

$$b^*_{ab}=b^*-b^*_{N}-I^*_{lab} \cdot [b^*_{W}-b^*_{N}]$$

$$C^*_{ab,a}=[a^*_{ab} \cos h_{ab} + b^*_{ab} \sin h_{ab}]$$



JE091-2A; 6; cf1=1.00; nt=0.18; nx=1.0, LECD_08_95

Linear relation adapted (a) CIELAB ($C^*_{ab,a}, L^*$) and relative CIELAB (c^*, I^*)

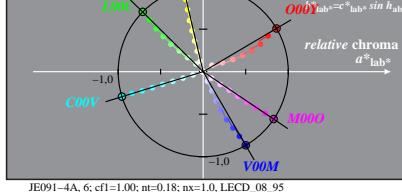
System: JE09 LECD display 10%_G0
Hue: $h^*_{Y00L}=96/360$; $h^*_{M000}=354/360$

$$I^*_{lab}=(L^*-L^*_{N})/(L^*_{W}-L^*_{N})$$

$$a^*_{ab}=a^*-a^*_{N}-I^*_{lab} \cdot [a^*_{W}-a^*_{N}]$$

$$b^*_{ab}=b^*-b^*_{N}-I^*_{lab} \cdot [b^*_{W}-b^*_{N}]$$

$$C^*_{ab,a}=[a^*_{ab} \cos h_{ab} + b^*_{ab} \sin h_{ab}]$$



JE091-4A; 6; cf1=1.00; nt=0.18; nx=1.0, LECD_08_95

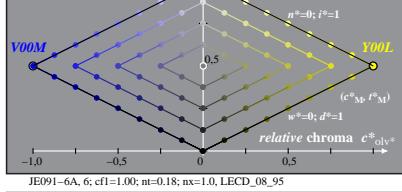
Linear relation olv* and relative chroma c^*_{olv*} and triangle lightness I^*_{olv*}

System: JE09 LECD display 10%_G0
Hue: $h^*_{Y00L}=96/360$; $h^*_{V00M}=305/360$

$$c^*_{olv*}=\max(olv*) - \min(olv*)$$

$$n^*=1-\max(olv*)-1-i^*$$

$$w^*=\min(olv*)-1-d^*$$



JE091-6A; 6; cf1=1.00; nt=0.18; nx=1.0, LECD_08_95

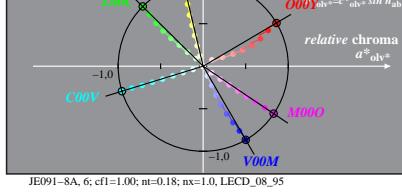
Linear relation olv* and relative chroma c^*_{olv*} and triangle lightness I^*_{olv*}

System: JE09 LECD display 10%_G0
Hue: $h^*_{Y00Y}=38/360$; $h^*_{C00V}=236/360$

$$b^*_{olv*}=\max(olv*) - \min(olv*)$$

$$n^*=1-\max(olv*)-1-i^*$$

$$w^*=\min(olv*)-1-d^*$$



JE091-8A; 6; cf1=1.00; nt=0.18; nx=1.0, LECD_08_95

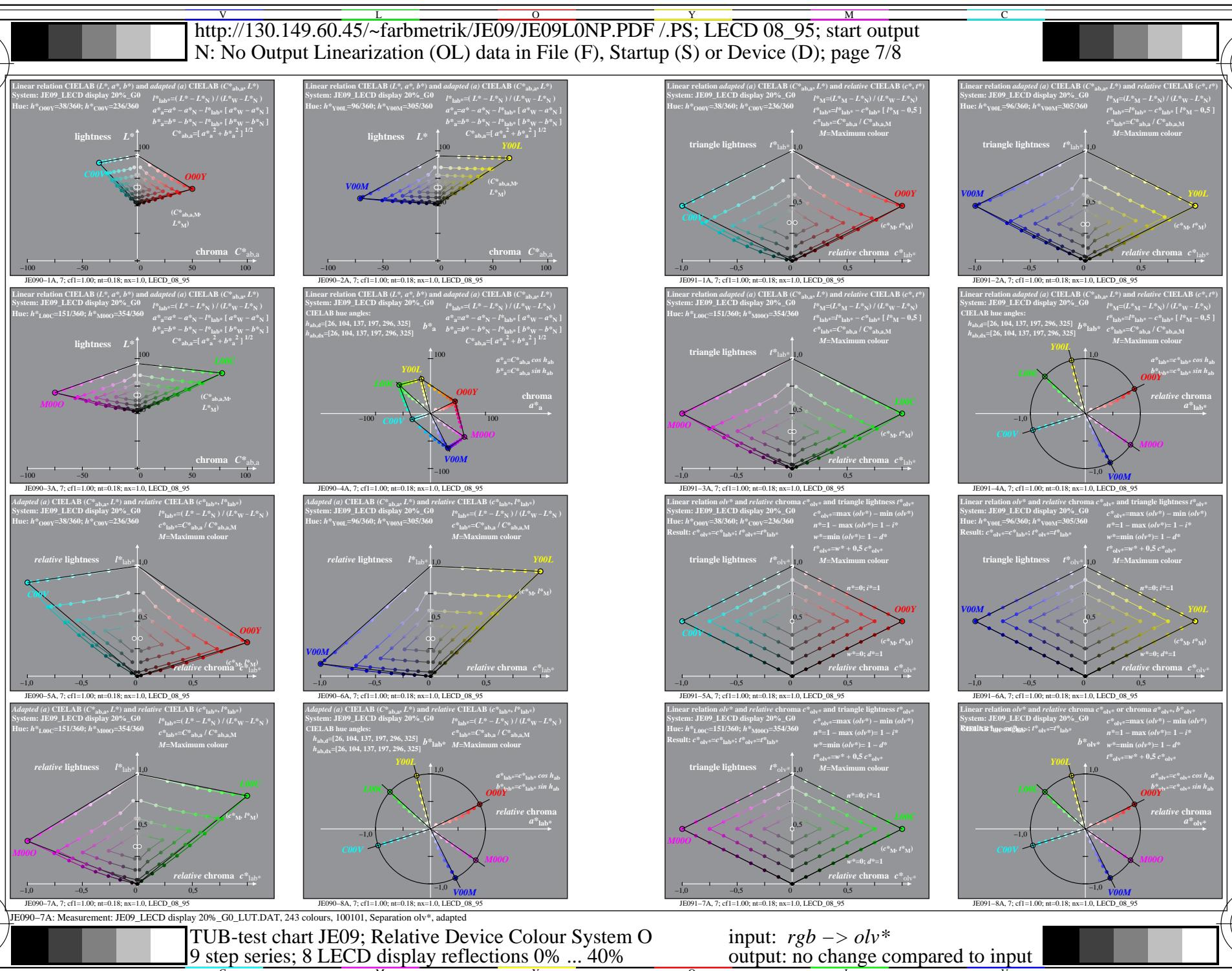
input: $rgb \rightarrow olv^*$

output: no change compared to input



TUB registration: 20100101-JE09/LECD_08_95.PDF /PS

TUB application for evaluation and measurement of printer or monitor systems



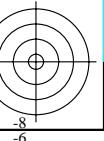
See original or copy: http://web.me.com/klaus_richter/JE09/LECD_08_95.PDF /PS

Technical information: <http://www.ps.bam.de>

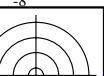
V 2.1, io=1,1, Cx=0; cf1=0.95; nt=0.18; nx=1.0

TUB registration: 20100101-JE09/JE09L0NP.PDF /PS

TUB application for evaluation and measurement of printer or monitor systems



input: $rgb \rightarrow olv^*$
output: no change compared to input



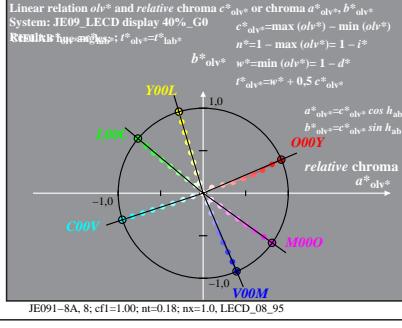
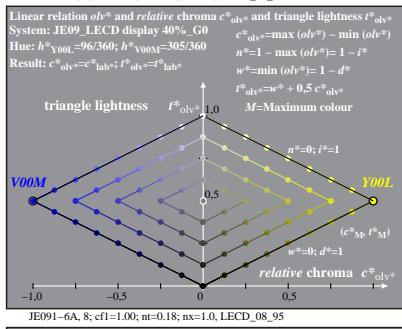
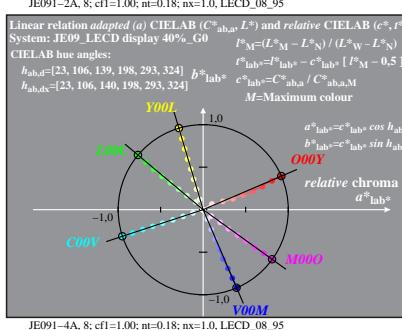
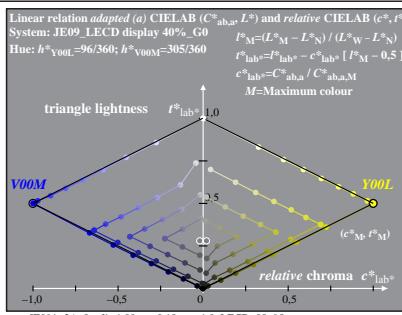
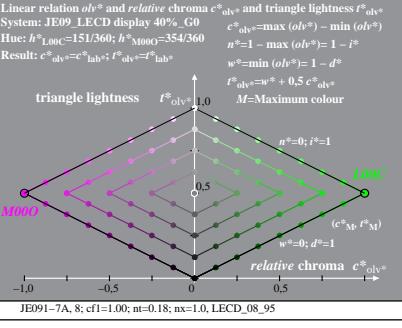
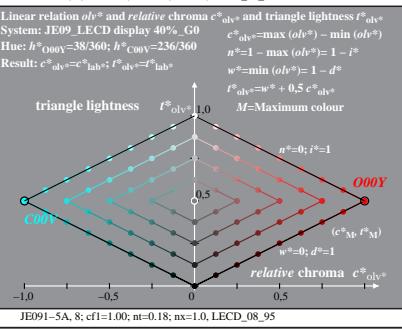
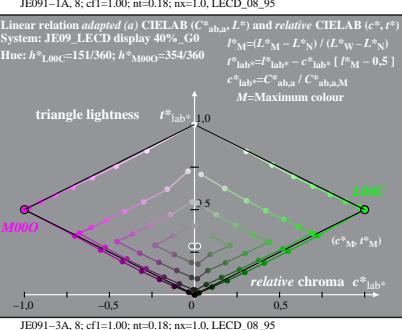
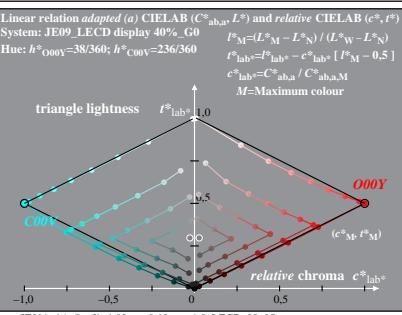
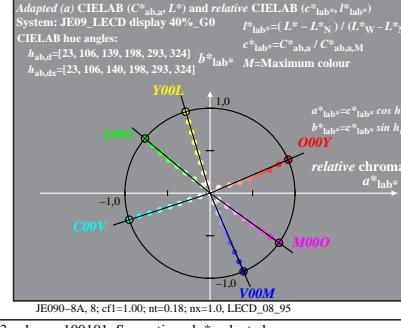
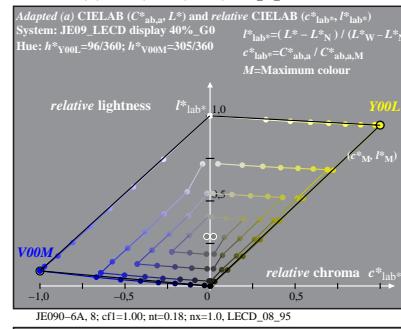
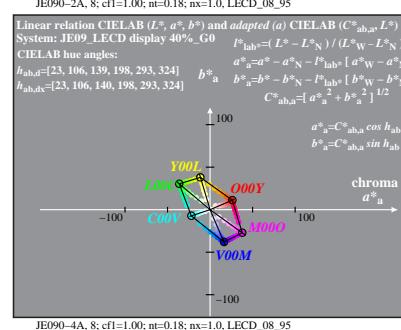
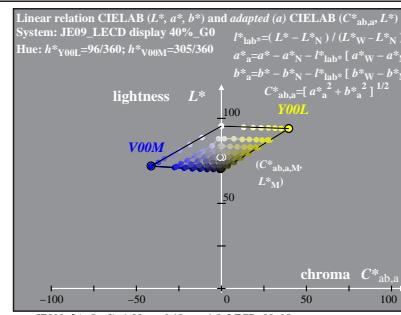
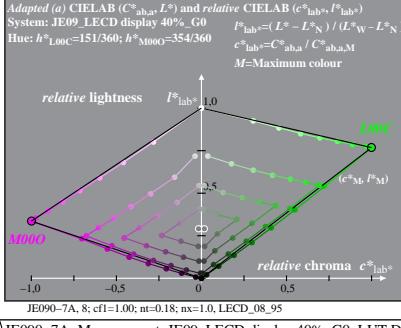
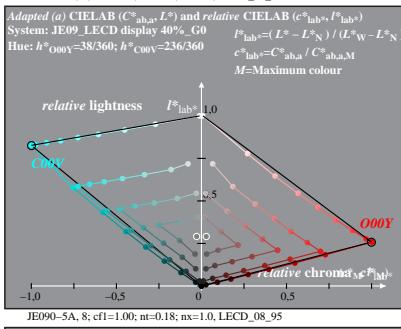
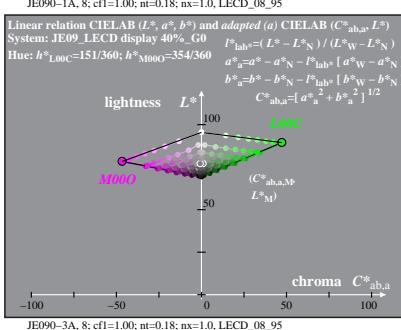
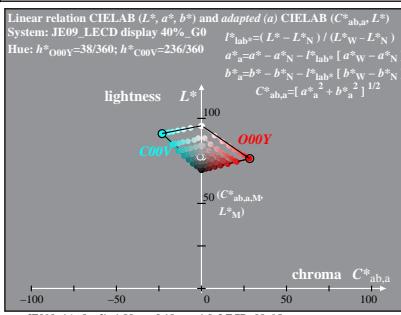
TUB-test chart JE09; Relative Device Colour System O
9 step series; 8 LCD display reflections 0% ... 40%

http://130.149.60.45/~farbmefrik/JE09/JE09L0NP.PDF /PS; LECD 08_95; start output
N: No Output Linearization (OL) data in File (F), Startup (S) or Device (D); page 8/8



See original or copy: http://web.me.com/klaus_richter/JE09/JE09L0NP.PDF /PS

Technical information: <http://www.ps.bam.de> V 2.1, io=1,1, Cx=0; cf1=0.95; nt=0.18; nx=1.0



JE090-7A: Measurement: JE09_LCD display 40%_G0_LUT.DAT, 243 colours, 100101, Separation olv^* , adapted

