see similar files of the whole serie: http://farbe.li.tu-berlin.de/EE.HTM
technical information: http://farbe.li.tu-berlin.de or http://color.li.tu-berlin.de

TUB registration: 20230801-EE16/EE16L0N1.TXT /.PS
application for evaluation and measurement of display or print output
TUB material: code=fha4a

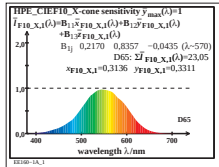
HPE_CIEF10_X-cone sensitivity $\bar{l}_{F10_X,t}(\lambda)$=1

$\bar{l}_{F10_X,t}(\lambda)=B_{1,1}\bar{x}_{F10_X,t}(\lambda)+B_{1,2}\bar{y}_{F10_X,t}(\lambda)+B_{1,3}\bar{z}_{F10_X,t}(\lambda)$

$B_{1,j}$	0,2170	0,8357	−0,0435	(λ~570)

D65: $\Sigma\bar{l}_{F10_X,t}(\lambda)$=23,05

$x_{F10_X,t}$=0,3136 $y_{F10_X,t}$=0,3311



EE160−1A_1

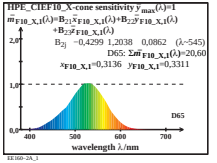
HPE_CIEF10_X-cone sensitivity $\bar{m}_{F10_X,t}(\lambda)$=1

$\bar{m}_{F10_X,t}(\lambda)=B_{2,1}\bar{x}_{F10_X,t}(\lambda)+B_{2,2}\bar{y}_{F10_X,t}(\lambda)+B_{2,3}\bar{z}_{F10_X,t}(\lambda)$

$B_{2,j}$	−0,4299	1,2038	0,0862	(λ~545)

D65: $\Sigma\bar{m}_{F10_X,t}(\lambda)$=20,60

$x_{F10_X,t}$=0,3136 $y_{F10_X,t}$=0,3311



EE160−2A_1

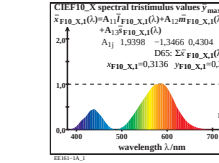
CIEF10_X spectral tristimulus values $\bar{x}_{max}(\lambda)$=1

$\bar{x}_{F10_X,t}(\lambda)=A_{1,1}\bar{x}_{F10_X,t}(\lambda)+A_{1,2}\bar{y}_{F10_X,t}(\lambda)+A_{1,3}\bar{z}_{F10_X,t}(\lambda)$

$A_{1,j}$	1,9398	−1,3466	0,4304	(λ~570)

D65: $\Sigma\bar{x}_{F10_X,t}(\lambda)$=21,95

$x_{F10_X,t}$=0,3136 $y_{F10_X,t}$=0,3311



EE161−1A_1

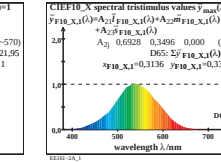
CIEF10_X spectral tristimulus values $\bar{y}_{max}(\lambda)$=1

$\bar{y}_{F10_X,t}(\lambda)=A_{2,1}\bar{x}_{F10_X,t}(\lambda)+A_{2,2}\bar{y}_{F10_X,t}(\lambda)+A_{2,3}\bar{z}_{F10_X,t}(\lambda)$

$A_{2,j}$	0,6928	0,3496	0,000	(λ~545)

D65: $\Sigma\bar{y}_{F10_X,t}(\lambda)$=23,17

$x_{F10_X,t}$=0,3136 $y_{F10_X,t}$=0,3311



EE161−2A_1

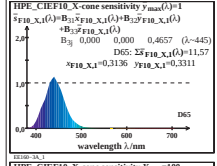
HPE_CIEF10_X-cone sensitivity $\bar{s}_{max}(\lambda)$=1

$\bar{s}_{F10_X,t}(\lambda)=B_{3,1}\bar{x}_{F10_X,t}(\lambda)+B_{3,2}\bar{y}_{F10_X,t}(\lambda)+B_{3,3}\bar{z}_{F10_X,t}(\lambda)$

$B_{3,j}$	0,000	0,000	0,4657	(λ~445)

D65: $\Sigma\bar{s}_{F10_X,t}(\lambda)$=11,57

$x_{F10_X,t}$=0,3136 $y_{F10_X,t}$=0,3311



EE160−3A_1

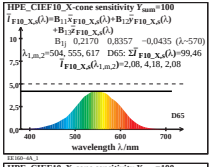
HPE_CIEF10_X-cone sensitivity $\bar{I}_{sum}$=100

$\bar{I}_{F10_X,s}(\lambda)=B_{1,1}\bar{x}_{F10_X,s}(\lambda)+B_{1,2}\bar{y}_{F10_X,s}(\lambda)+B_{1,3}\bar{z}_{F10_X,s}(\lambda)$

$B_{1,j}$	0,2170	0,8357	−0,0435	(λ~570)

$\lambda_{1,m,2}$=504, 555, 617 D65: $\Sigma\bar{I}_{F10_X,s}(\lambda)$=99,46

$\bar{I}_{F10_X,s}(\lambda_{1,m,2})$=2,08, 4,18, 2,08



EE160−4A_1

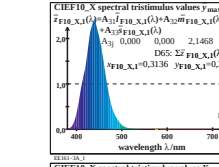
CIEF10_X spectral tristimulus values $\bar{z}_{max}(\lambda)$=1

$\bar{z}_{F10_X,t}(\lambda)=A_{3,1}\bar{x}_{F10_X,t}(\lambda)+A_{3,2}\bar{y}_{F10_X,t}(\lambda)+A_{3,3}\bar{z}_{F10_X,t}(\lambda)$

$A_{3,j}$	0,000	0,000	2,1468	(λ~445)

D65: $\Sigma\bar{z}_{F10_X,t}(\lambda)$=24,85

$x_{F10_X,t}$=0,3136 $y_{F10_X,t}$=0,3311



EE161−3A_1

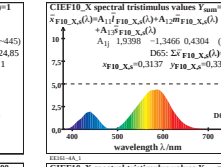
CIEF10_X spectral tristimulus values $\bar{I}_{sum}$=100

$\bar{x}_{F10_X,s}(\lambda)=A_{1,1}\bar{x}_{F10_X,s}(\lambda)+A_{1,2}\bar{y}_{F10_X,s}(\lambda)+A_{1,3}\bar{z}_{F10_X,s}(\lambda)$

$A_{1,j}$	1,9398	−1,3466	0,4304	(λ~570)

D65: $\Sigma\bar{x}_{F10_X,s}(\lambda)$=94,73

$x_{F10_X,s}$=0,3137 $y_{F10_X,s}$=0,3311



EE161−4A_1

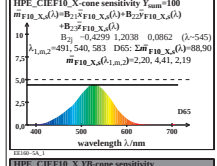
HPE_CIEF10_X-cone sensitivity $\bar{I}_{sum}$=100

$\bar{m}_{F10_X,s}(\lambda)=B_{2,1}\bar{x}_{F10_X,s}(\lambda)+B_{2,2}\bar{y}_{F10_X,s}(\lambda)+B_{2,3}\bar{z}_{F10_X,s}(\lambda)$

$B_{2,j}$	−0,4299	1,2038	0,0862	(λ~545)

$\lambda_{1,m,2}$=491, 540, 583 D65: $\Sigma\bar{m}_{F10_X,s}(\lambda)$=88,90

$\bar{m}_{F10_X,s}(\lambda_{1,m,2})$=2,20, 4,41, 2,19



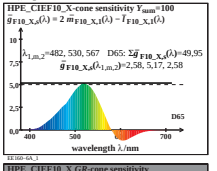
EE160−5A_1

HPE_CIEF10_X-cone sensitivity $\bar{I}_{sum}$=100

$\bar{g}_{F10_X,s}(\lambda) = 2\ \bar{m}_{F10_X,t}(\lambda) - \bar{l}_{F10_X,t}(\lambda)$

$\lambda_{1,m,2}$=482, 530, 567 D65: $\Sigma\bar{g}_{F10_X,s}(\lambda)$=49,95

$\bar{g}_{F10_X,s}(\lambda_{1,m,2})$=2,58, 5,17, 2,58



EE160−6A_1

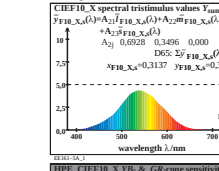
CIEF10_X spectral tristimulus values $\bar{I}_{sum}$=100

$\bar{y}_{F10_X,s}(\lambda)=A_{2,1}\bar{x}_{F10_X,s}(\lambda)+A_{2,2}\bar{y}_{F10_X,s}(\lambda)+A_{2,3}\bar{z}_{F10_X,s}(\lambda)$

$A_{2,j}$	0,6928	0,3496	0,000	(λ~545)

D65: $\Sigma\bar{y}_{F10_X,s}(\lambda)$=99,99

$x_{F10_X,s}$=0,3137 $y_{F10_X,s}$=0,3311



EE161−5A_1

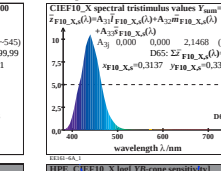
CIEF10_X spectral tristimulus values $\bar{I}_{sum}$=100

$\bar{z}_{F10_X,s}(\lambda)=A_{3,1}\bar{x}_{F10_X,s}(\lambda)+A_{3,2}\bar{y}_{F10_X,s}(\lambda)+A_{3,3}\bar{z}_{F10_X,s}(\lambda)$

$A_{3,j}$	0,000	0,000	2,1468	(λ~445)

D65: $\Sigma\bar{z}_{F10_X,s}(\lambda)$=107,22

$x_{F10_X,s}$=0,3137 $y_{F10_X,s}$=0,3311



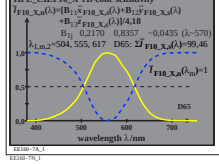
EE161−6A_1

HPE_CIEF10_X *YB*-cone sensitivity

$\bar{l}_{F10_X,n}(\lambda)=[B_{1,1}\bar{x}_{F10_X,n}(\lambda)+B_{1,2}\bar{y}_{F10_X,n}(\lambda)+B_{1,3}\bar{z}_{F10_X,n}(\lambda)]\cdot 4,18$

$B_{1,j}$	0,2170	0,8357	−0,0435	(λ~570)

$\lambda_{1,m,2}$=504, 555, 617 D65: $\Sigma\bar{I}_{F10_X,n}(\lambda)$=99,46



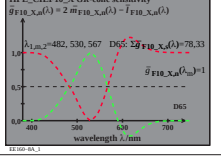
EE160−7A_1

EE160−7B_1

HPE_CIEF10_X *GR*-cone sensitivity

$\bar{g}_{F10_X,n}(\lambda) = 2\ \bar{m}_{F10_X,n}(\lambda) - \bar{l}_{F10_X,n}(\lambda)$

$\lambda_{1,m,2}$=482, 530, 567 D65: $\Sigma\bar{g}_{F10_X,n}(\lambda)$=78,33



EE160−8A_1

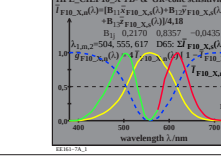
HPE_CIEF10_X *YB*- & *GR*-cone sensitivity

$\bar{l}_{F10_X,n}(\lambda)=[B_{1,1}\bar{x}_{F10_X,n}(\lambda)+B_{1,2}\bar{y}_{F10_X,n}(\lambda)+B_{1,3}\bar{z}_{F10_X,n}(\lambda)]\cdot 4,18$

$B_{1,j}$	0,2170	0,8357	−0,0435	(λ~570)

$\lambda_{1,m,2}$=504, 555, 617 D65: $\Sigma\bar{I}_{F10_X,n}(\lambda)$=99,46

$\bar{g}_{F10_X,n}(\lambda) = 4\cdot\bar{m}_{F10_X,n}(\lambda) - 1\cdot\bar{l}_{F10_X,n}(\lambda)$



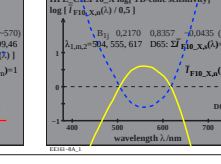
EE161−7A_1

HPE_CIEF10_X log[*YB*-cone sensitivity]

$\log[\ \bar{l}_{F10_X,n}(\lambda) / 0,5\ ]$

$B_{1,j}$	0,2170	0,8357	−0,0435	(λ~570)

$\lambda_{1,m,2}$=504, 555, 617 D65: $\Sigma\bar{I}_{F10_X,n}(\lambda)$=99,46



EE161−8A_1

TUB-test chart EE16; XYZ-CIEF_10-degree colorimetry
Cone sensivity, transformation, and spectral tristimulus values for CIE illuminant D65, linear data