see similar files: http://farbe.li.tu-berlin.de/CEO9/CEO9.HTM
technical information: http://farbe.li.tu-berlin.de or http://color.li.tu-berlin.de

TUB registration: 20220101-CEO9/CEO9L0NP.PDF /.PS
application for measurement of offset print output

TUB material: code=rha4ta

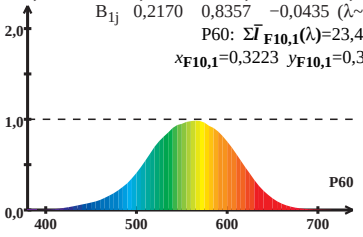
HPE_CIEF10-cone sensitivity $\bar{y}_{max}(\lambda)=1$

$\bar{l}_{F10,1}(\lambda)=B_{11}\bar{x}_{F10,1}(\lambda)+B_{12}\bar{y}_{F10,1}(\lambda)+B_{13}\bar{z}_{F10,1}(\lambda)$

B_{1j} 0,2170 0,8357 −0,0435 (λ~570)

P60: $\Sigma\bar{l}_{F10,1}(\lambda)$=23,48

$x_{F10,1}$=0,3223 $y_{F10,1}$=0,3320



CEO90−1A_P60

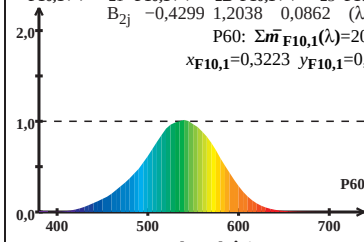
HPE_CIEF10-cone sensitivity $\bar{y}_{max}(\lambda)=1$

$\bar{m}_{F10,1}(\lambda)=B_{21}\bar{x}_{F10,1}(\lambda)+B_{22}\bar{y}_{F10,1}(\lambda)+B_{23}\bar{z}_{F10,1}(\lambda)$

B_{2j} −0,4299 1,2038 0,0862 (λ~545)

P60: $\Sigma\bar{m}_{F10,1}(\lambda)$=20,55

$x_{F10,1}$=0,3223 $y_{F10,1}$=0,3320



CEO90−2A_P60

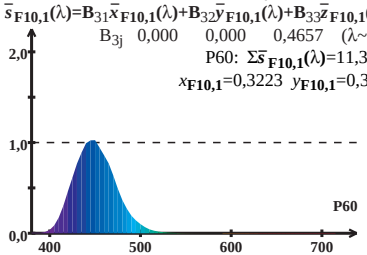
HPE_CIEF10-cone sensitivity $\bar{y}_{max}(\lambda)=1$

$\bar{s}_{F10,1}(\lambda)=B_{31}\bar{x}_{F10,1}(\lambda)+B_{32}\bar{y}_{F10,1}(\lambda)+B_{33}\bar{z}_{F10,1}(\lambda)$

B_{3j} 0,000 0,000 0,4657 (λ~445)

P60: $\Sigma\bar{s}_{F10,1}(\lambda)$=11,37

$x_{F10,1}$=0,3223 $y_{F10,1}$=0,3320



CEO90−3A_P60

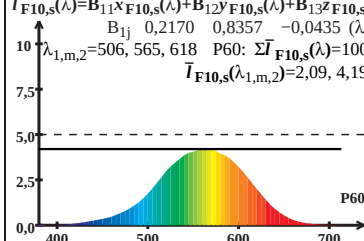
HPE_CIEF10-cone sensitivity Y_{sum}=100

$\bar{l}_{F10,s}(\lambda)=B_{11}\bar{x}_{F10,s}(\lambda)+B_{12}\bar{y}_{F10,s}(\lambda)+B_{13}\bar{z}_{F10,s}(\lambda)$

B_{1j} 0,2170 0,8357 −0,0435 (λ~570)

$\lambda_{1,m,2}$=506, 565, 618 P60: $\Sigma\bar{l}_{F10,s}(\lambda)$=100,11

$\bar{l}_{F10,s}(\lambda_{1,m,2})$=2,09, 4,19, 2,09



CEO90−4A_P60

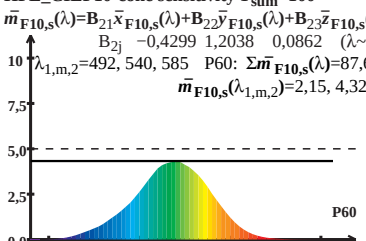
HPE_CIEF10-cone sensitivity Y_{sum}=100

$\bar{m}_{F10,s}(\lambda)=B_{21}\bar{x}_{F10,s}(\lambda)+B_{22}\bar{y}_{F10,s}(\lambda)+B_{23}\bar{z}_{F10,s}(\lambda)$

B_{2j} −0,4299 1,2038 0,0862 (λ~545)

$\lambda_{1,m,2}$=492, 540, 585 P60: $\Sigma\bar{m}_{F10,s}(\lambda)$=87,61

$\bar{m}_{F10,s}(\lambda_{1,m,2})$=2,15, 4,32, 2,16



CEO90−5A_P60

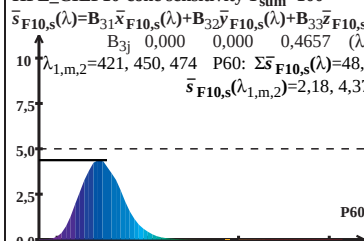
HPE_CIEF10-cone sensitivity Y_{sum}=100

$\bar{s}_{F10,s}(\lambda)=B_{31}\bar{x}_{F10,s}(\lambda)+B_{32}\bar{y}_{F10,s}(\lambda)+B_{33}\bar{z}_{F10,s}(\lambda)$

B_{3j} 0,000 0,000 0,4657 (λ~445)

$\lambda_{1,m,2}$=421, 450, 474 P60: $\Sigma\bar{s}_{F10,s}(\lambda)$=48,46

$\bar{s}_{F10,s}(\lambda_{1,m,2})$=2,18, 4,37, 2,17



CEO90−6A_P60

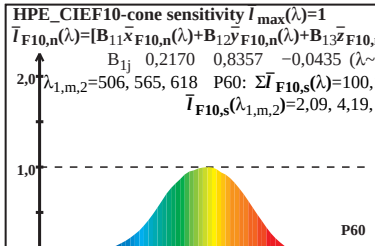
HPE_CIEF10-cone sensitivity $l_{max}(\lambda)=1$

$\bar{l}_{F10,n}(\lambda)=[B_{11}\bar{x}_{F10,n}(\lambda)+B_{12}\bar{y}_{F10,n}(\lambda)+B_{13}\bar{z}_{F10,n}(\lambda)]/$

B_{1j} 0,2170 0,8357 −0,0435 (λ~570)

$\lambda_{1,m,2}$=506, 565, 618 P60: $\Sigma\bar{l}_{F10,s}(\lambda)$=100,11

$\bar{l}_{F10,s}(\lambda_{1,m,2})$=2,09, 4,19, 2,09



CEO90−7A_P60

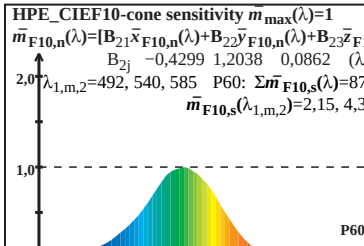
HPE_CIEF10-cone sensitivity $\bar{m}_{max}(\lambda)=1$

$\bar{m}_{F10,n}(\lambda)=[B_{21}\bar{x}_{F10,n}(\lambda)+B_{22}\bar{y}_{F10,n}(\lambda)+B_{23}\bar{z}_{F10,n}(\lambda)]$

B_{2j} −0,4299 1,2038 0,0862 (λ~545)

$\lambda_{1,m,2}$=492, 540, 585 P60: $\Sigma\bar{m}_{F10,s}(\lambda)$=87,61

$\bar{m}_{F10,s}(\lambda_{1,m,2})$=2,15, 4,32, 2,16



CEO90−8A_P60

CEO90−7N

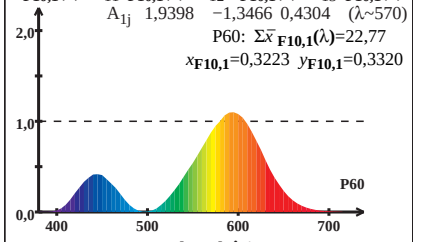
CIEF10 spectral tristimulus values $\bar{y}_{max}(\lambda)=1$

$\bar{x}_{F10,1}(\lambda)=A_{11}\bar{l}_{F10,1}(\lambda)+A_{12}\bar{m}_{F10,1}(\lambda)+A_{13}\bar{s}_{F10,1}(\lambda)$

A_{1j} 1,9398 −1,3466 0,4304 (λ~570)

P60: $\Sigma\bar{x}_{F10,1}(\lambda)$=22,77

$x_{F10,1}$=0,3223 $y_{F10,1}$=0,3320



CEO91−1A_P60

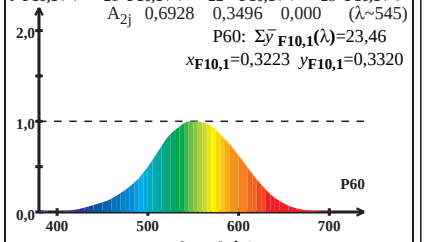
CIEF10 spectral tristimulus values $\bar{y}_{max}(\lambda)=1$

$\bar{y}_{F10,1}(\lambda)=A_{21}\bar{l}_{F10,1}(\lambda)+A_{22}\bar{m}_{F10,1}(\lambda)+A_{23}\bar{s}_{F10,1}(\lambda)$

A_{2j} 0,6928 0,3496 0,000 (λ~545)

P60: $\Sigma\bar{y}_{F10,1}(\lambda)$=23,46

$x_{F10,1}$=0,3223 $y_{F10,1}$=0,3320



CEO91−2A_P60

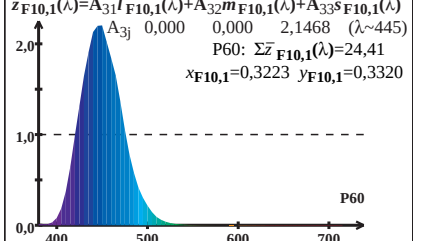
CIEF10 spectral tristimulus values $\bar{y}_{max}(\lambda)=1$

$\bar{z}_{F10,1}(\lambda)=A_{31}\bar{l}_{F10,1}(\lambda)+A_{32}\bar{m}_{F10,1}(\lambda)+A_{33}\bar{s}_{F10,1}(\lambda)$

A_{3j} 0,000 0,000 2,1468 (λ~445)

P60: $\Sigma\bar{z}_{F10,1}(\lambda)$=24,41

$x_{F10,1}$=0,3223 $y_{F10,1}$=0,3320



CEO91−3A_P60

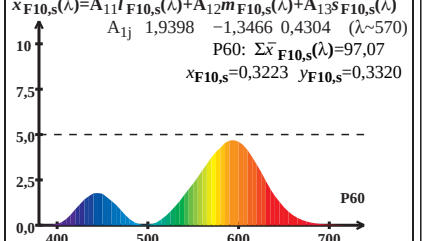
CIEF10 spectral tristimulus values Y_{sum}=100

$\bar{x}_{F10,s}(\lambda)=A_{11}\bar{l}_{F10,s}(\lambda)+A_{12}\bar{m}_{F10,s}(\lambda)+A_{13}\bar{s}_{F10,s}(\lambda)$

A_{1j} 1,9398 −1,3466 0,4304 (λ~570)

P60: $\Sigma\bar{x}_{F10,s}(\lambda)$=97,07

$x_{F10,s}$=0,3223 $y_{F10,s}$=0,3320



CEO91−4A_P60

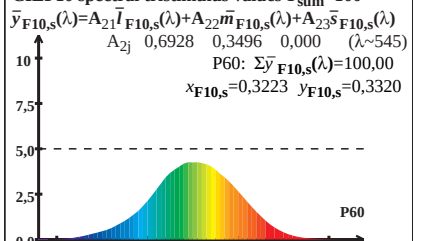
CIEF10 spectral tristimulus values Y_{sum}=100

$\bar{y}_{F10,s}(\lambda)=A_{21}\bar{l}_{F10,s}(\lambda)+A_{22}\bar{m}_{F10,s}(\lambda)+A_{23}\bar{s}_{F10,s}(\lambda)$

A_{2j} 0,6928 0,3496 0,000 (λ~545)

P60: $\Sigma\bar{y}_{F10,s}(\lambda)$=100,00

$x_{F10,s}$=0,3223 $y_{F10,s}$=0,3320



CEO91−5A_P60

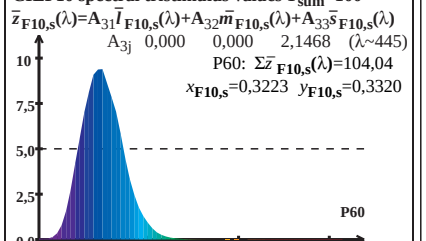
CIEF10 spectral tristimulus values Y_{sum}=100

$\bar{z}_{F10,s}(\lambda)=A_{31}\bar{l}_{F10,s}(\lambda)+A_{32}\bar{m}_{F10,s}(\lambda)+A_{33}\bar{s}_{F10,s}(\lambda)$

A_{3j} 0,000 0,000 2,1468 (λ~445)

P60: $\Sigma\bar{z}_{F10,s}(\lambda)$=104,04

$x_{F10,s}$=0,3223 $y_{F10,s}$=0,3320



CEO91−6A_P60

CIEF10 spectral tristimulus values $\bar{y}_{max}(\lambda)=1$

$\bar{y}_{F10,1}(\lambda)=A_{21}\bar{l}_{F10,1}(\lambda)+A_{22}\bar{m}_{F10,1}(\lambda)+A_{23}\bar{s}_{F10,1}(\lambda)$

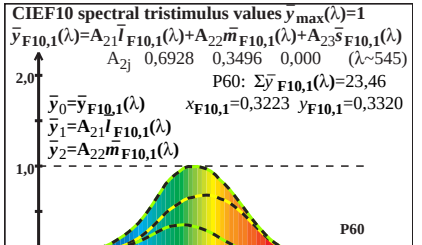
A_{2j} 0,6928 0,3496 0,000 (λ~545)

P60: $\Sigma\bar{y}_{F10,1}(\lambda)$=23,46

$\bar{y}_0=\bar{y}_{F10,1}(\lambda)$ $x_{F10,1}$=0,3223 $y_{F10,1}$=0,3320

$\bar{y}_1=A_{21}\bar{l}_{F10,1}(\lambda)$

$\bar{y}_2=A_{22}\bar{m}_{F10,1}(\lambda)$



CEO91−7A_P60

CIEF10 spectral tristimulus values $\bar{y}_{max}(\lambda)=1$

$\bar{y}_{F10,1}(\lambda)=A_{21}\bar{l}_{F10,1}(\lambda)+A_{22}\bar{m}_{F10,1}(\lambda)+A_{23}\bar{s}_{F10,1}(\lambda)$

A_{2j} 0,6928 0,3496 0,000 (λ~545)

P60: $\Sigma\bar{y}_{F10,1}(\lambda)$=23,46

$\bar{y}_0=\bar{y}_{F10,1}(\lambda)$ $x_{F10,1}$=0,3223 $y_{F10,1}$=0,3320

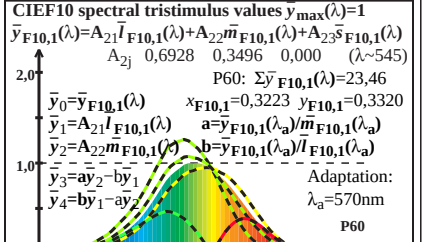
$\bar{y}_1=A_{21}\bar{l}_{F10,1}(\lambda)$ $a=\bar{y}_{F10,1}(\lambda_a)/\bar{m}_{F10,1}(\lambda_a)$

$\bar{y}_2=A_{22}\bar{m}_{F10,1}(\lambda)$ $b=\bar{y}_{F10,1}(\lambda_a)/\bar{l}_{F10,1}(\lambda_a)$

$\bar{y}_3=a\bar{y}_2-b\bar{y}_1$

$\bar{y}_4=b\bar{y}_1-a\bar{y}_2$

Adaptation: λ_a=570nm



CEO91−8A_P60

CEO91−7N

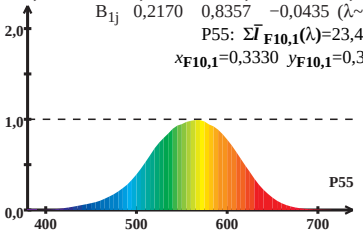
HPE_CIEF10-cone sensitivity $\bar{y}_{max}(\lambda)=1$

$\bar{l}_{F10,1}(\lambda)=B_{11}\bar{x}_{F10,1}(\lambda)+B_{12}\bar{y}_{F10,1}(\lambda)+B_{13}\bar{z}_{F10,1}(\lambda)$

B_{1j} 0,2170 0,8357 −0,0435 (λ~570)

P55: $\Sigma\bar{l}_{F10,1}(\lambda)=23,49$

$x_{F10,1}=0,3330$ $y_{F10,1}=0,3409$



CEO90−1A_P55

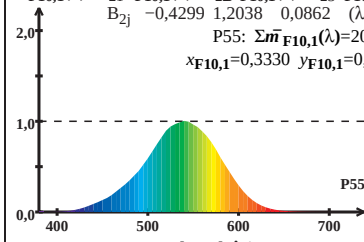
HPE_CIEF10-cone sensitivity $\bar{y}_{max}(\lambda)=1$

$\bar{m}_{F10,1}(\lambda)=B_{21}\bar{x}_{F10,1}(\lambda)+B_{22}\bar{y}_{F10,1}(\lambda)+B_{23}\bar{z}_{F10,1}(\lambda)$

B_{2j} −0,4299 1,2038 0,0862 (λ~545)

P55: $\Sigma\bar{m}_{F10,1}(\lambda)=20,22$

$x_{F10,1}=0,3330$ $y_{F10,1}=0,3409$



CEO90−2A_P55

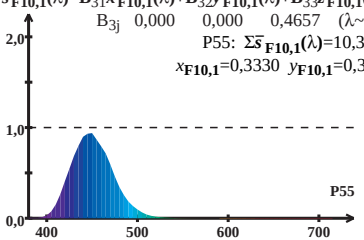
HPE_CIEF10-cone sensitivity $\bar{y}_{max}(\lambda)=1$

$\bar{s}_{F10,1}(\lambda)=B_{31}\bar{x}_{F10,1}(\lambda)+B_{32}\bar{y}_{F10,1}(\lambda)+B_{33}\bar{z}_{F10,1}(\lambda)$

B_{3j} 0,000 0,000 0,4657 (λ~445)

P55: $\Sigma\bar{s}_{F10,1}(\lambda)=10,39$

$x_{F10,1}=0,3330$ $y_{F10,1}=0,3409$



CEO90−3A_P55

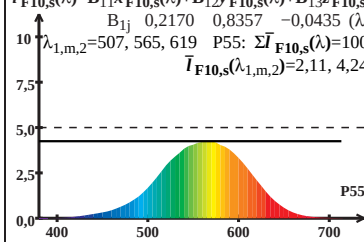
HPE_CIEF10-cone sensitivity $Y_{sum}=100$

$\bar{l}_{F10,s}(\lambda)=B_{11}\bar{x}_{F10,s}(\lambda)+B_{12}\bar{y}_{F10,s}(\lambda)+B_{13}\bar{z}_{F10,s}(\lambda)$

B_{1j} 0,2170 0,8357 −0,0435 (λ~570)

$\lambda_{1,m,2}=507, 565, 619$ P55: $\Sigma\bar{l}_{F10,s}(\lambda)=100,61$

$\bar{l}_{F10,s}(\lambda_{1,m,2})=2,11, 4,24, 2,11$



CEO90−4A_P55

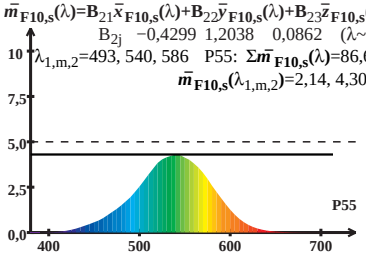
HPE_CIEF10-cone sensitivity $Y_{sum}=100$

$\bar{m}_{F10,s}(\lambda)=B_{21}\bar{x}_{F10,s}(\lambda)+B_{22}\bar{y}_{F10,s}(\lambda)+B_{23}\bar{z}_{F10,s}(\lambda)$

B_{2j} −0,4299 1,2038 0,0862 (λ~545)

$\lambda_{1,m,2}=493, 540, 586$ P55: $\Sigma\bar{m}_{F10,s}(\lambda)=86,61$

$\bar{m}_{F10,s}(\lambda_{1,m,2})=2,14, 4,30, 2,14$



CEO90−5A_P55

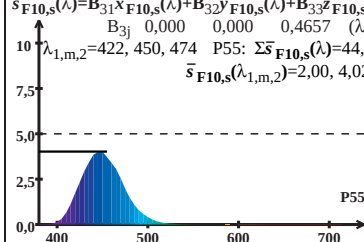
HPE_CIEF10-cone sensitivity $Y_{sum}=100$

$\bar{s}_{F10,s}(\lambda)=B_{31}\bar{x}_{F10,s}(\lambda)+B_{32}\bar{y}_{F10,s}(\lambda)+B_{33}\bar{z}_{F10,s}(\lambda)$

B_{3j} 0,000 0,000 0,4657 (λ~445)

$\lambda_{1,m,2}=422, 450, 474$ P55: $\Sigma\bar{s}_{F10,s}(\lambda)=44,51$

$\bar{s}_{F10,s}(\lambda_{1,m,2})=2,00, 4,02, 2,00$



CEO90−6A_P55

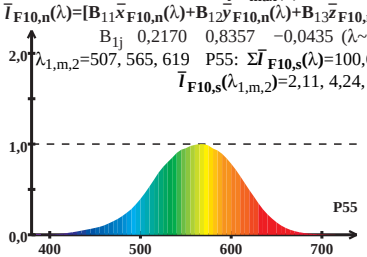
HPE_CIEF10-cone sensitivity $l_{max}(\lambda)=1$

$\bar{l}_{F10,n}(\lambda)=[B_{11}\bar{x}_{F10,n}(\lambda)+B_{12}\bar{y}_{F10,n}(\lambda)+B_{13}\bar{z}_{F10,n}(\lambda)]$

B_{1j} 0,2170 0,8357 −0,0435 (λ~570)

$\lambda_{1,m,2}=507, 565, 619$ P55: $\Sigma\bar{l}_{F10,s}(\lambda)=100,61$

$\bar{l}_{F10,s}(\lambda_{1,m,2})=2,11, 4,24, 2,11$



CEO90−7A_P55

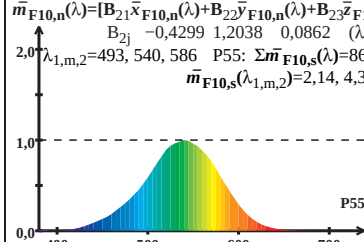
HPE_CIEF10-cone sensitivity $\bar{m}_{max}(\lambda)=1$

$\bar{m}_{F10,n}(\lambda)=[B_{21}\bar{x}_{F10,n}(\lambda)+B_{22}\bar{y}_{F10,n}(\lambda)+B_{23}\bar{z}_{F10,n}(\lambda)]$

B_{2j} −0,4299 1,2038 0,0862 (λ~545)

$\lambda_{1,m,2}=493, 540, 586$ P55: $\Sigma\bar{m}_{F10,s}(\lambda)=86,61$

$\bar{m}_{F10,s}(\lambda_{1,m,2})=2,14, 4,30, 2,14$



CEO90−8A_P55

CEO90−7N

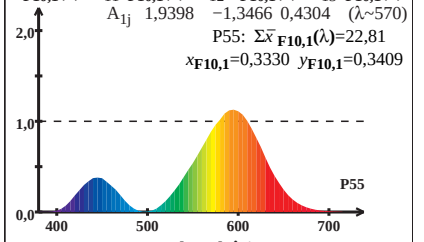
CIEF10 spectral tristimulus values $\bar{y}_{max}(\lambda)=1$

$\bar{x}_{F10,1}(\lambda)=A_{11}\bar{l}_{F10,1}(\lambda)+A_{12}\bar{m}_{F10,1}(\lambda)+A_{13}\bar{s}_{F10,1}(\lambda)$

A_{1j} 1,9398 −1,3466 0,4304 (λ~570)

P55: $\Sigma\bar{x}_{F10,1}(\lambda)=22,81$

$x_{F10,1}=0,3330$ $y_{F10,1}=0,3409$



CEO91−1A_P55

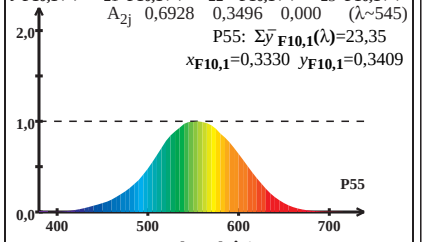
CIEF10 spectral tristimulus values $\bar{y}_{max}(\lambda)=1$

$\bar{y}_{F10,1}(\lambda)=A_{21}\bar{l}_{F10,1}(\lambda)+A_{22}\bar{m}_{F10,1}(\lambda)+A_{23}\bar{s}_{F10,1}(\lambda)$

A_{2j} 0,6928 0,3496 0,000 (λ~545)

P55: $\Sigma\bar{y}_{F10,1}(\lambda)=23,35$

$x_{F10,1}=0,3330$ $y_{F10,1}=0,3409$



CEO91−2A_P55

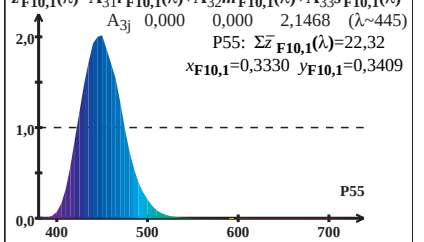
CIEF10 spectral tristimulus values $\bar{y}_{max}(\lambda)=1$

$\bar{z}_{F10,1}(\lambda)=A_{31}\bar{l}_{F10,1}(\lambda)+A_{32}\bar{m}_{F10,1}(\lambda)+A_{33}\bar{s}_{F10,1}(\lambda)$

A_{3j} 0,000 0,000 2,1468 (λ~445)

P55: $\Sigma\bar{z}_{F10,1}(\lambda)=22,32$

$x_{F10,1}=0,3330$ $y_{F10,1}=0,3409$



CEO91−3A_P55

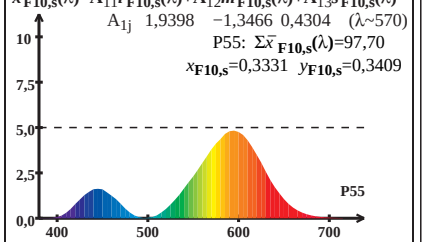
CIEF10 spectral tristimulus values $Y_{sum}=100$

$\bar{x}_{F10,s}(\lambda)=A_{11}\bar{l}_{F10,s}(\lambda)+A_{12}\bar{m}_{F10,s}(\lambda)+A_{13}\bar{s}_{F10,s}(\lambda)$

A_{1j} 1,9398 −1,3466 0,4304 (λ~570)

P55: $\Sigma\bar{x}_{F10,s}(\lambda)=97,70$

$x_{F10,s}=0,3331$ $y_{F10,s}=0,3409$



CEO91−4A_P55

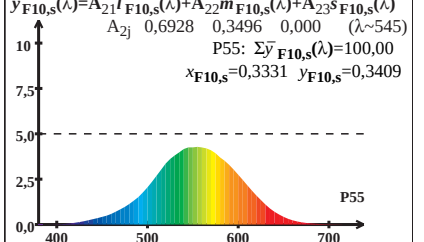
CIEF10 spectral tristimulus values $Y_{sum}=100$

$\bar{y}_{F10,s}(\lambda)=A_{21}\bar{l}_{F10,s}(\lambda)+A_{22}\bar{m}_{F10,s}(\lambda)+A_{23}\bar{s}_{F10,s}(\lambda)$

A_{2j} 0,6928 0,3496 0,000 (λ~545)

P55: $\Sigma\bar{y}_{F10,s}(\lambda)=100,00$

$x_{F10,s}=0,3331$ $y_{F10,s}=0,3409$



CEO91−5A_P55

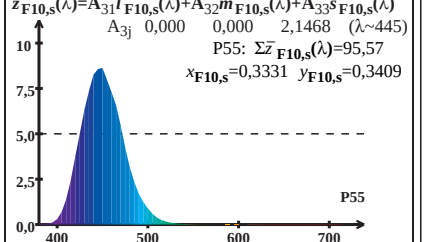
CIEF10 spectral tristimulus values $Y_{sum}=100$

$\bar{z}_{F10,s}(\lambda)=A_{31}\bar{l}_{F10,s}(\lambda)+A_{32}\bar{m}_{F10,s}(\lambda)+A_{33}\bar{s}_{F10,s}(\lambda)$

A_{3j} 0,000 0,000 2,1468 (λ~445)

P55: $\Sigma\bar{z}_{F10,s}(\lambda)=95,57$

$x_{F10,s}=0,3331$ $y_{F10,s}=0,3409$



CEO91−6A_P55

CIEF10 spectral tristimulus values $\bar{y}_{max}(\lambda)=1$

$\bar{y}_{F10,1}(\lambda)=A_{21}\bar{l}_{F10,1}(\lambda)+A_{22}\bar{m}_{F10,1}(\lambda)+A_{23}\bar{s}_{F10,1}(\lambda)$

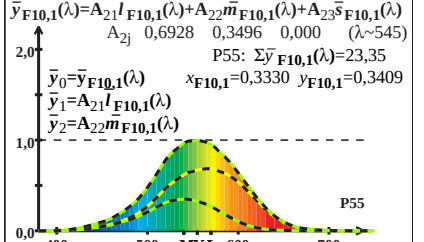
A_{2j} 0,6928 0,3496 0,000 (λ~545)

P55: $\Sigma\bar{y}_{F10,1}(\lambda)=23,35$

$\bar{y}_0=\bar{y}_{F10,1}(\lambda)$ $x_{F10,1}=0,3330$ $y_{F10,1}=0,3409$

$\bar{y}_1=A_{21}\bar{l}_{F10,1}(\lambda)$

$\bar{y}_2=A_{22}\bar{m}_{F10,1}(\lambda)$



CEO91−7A_P55

CIEF10 spectral tristimulus values $\bar{y}_{max}(\lambda)=1$

$\bar{y}_{F10,1}(\lambda)=A_{21}\bar{l}_{F10,1}(\lambda)+A_{22}\bar{m}_{F10,1}(\lambda)+A_{23}\bar{s}_{F10,1}(\lambda)$

A_{2j} 0,6928 0,3496 0,000 (λ~545)

P55: $\Sigma\bar{y}_{F10,1}(\lambda)=23,35$

$\bar{y}_0=\bar{y}_{F10,1}(\lambda)$ $x_{F10,1}=0,3330$ $y_{F10,1}=0,3409$

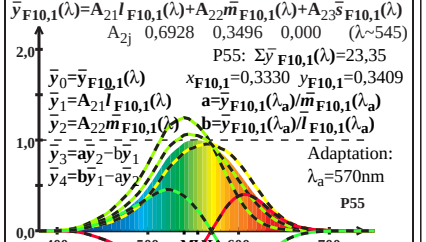
$\bar{y}_1=A_{21}\bar{l}_{F10,1}(\lambda)$ $a=\bar{y}_{F10,1}(\lambda_a)/\bar{m}_{F10,1}(\lambda_a)$

$\bar{y}_2=A_{22}\bar{m}_{F10,1}(\lambda)$ $b=\bar{y}_{F10,1}(\lambda_a)/\bar{l}_{F10,1}(\lambda_a)$

$\bar{y}_3=a\bar{y}_2-b\bar{y}_1$

$\bar{y}_4=b\bar{y}_1-a\bar{y}_2$

Adaptation:
$\lambda_a=570$nm



CEO91−8A_P55

CEO91−7N

see similar files: http://farbe.li.tu-berlin.de/CEO9/CEO9.HTM
technical information: http://farbe.li.tu-berlin.de or http://color.li.tu-berlin.de

TUB registration: 20220101-CEO9/CEO9L0NP.PDF /.PS
application for measurement of offset print output

TUB material: code=rha4ta

see similar files: http://farbe.li.tu-berlin.de/CEO9/CEO9.HTM
technical information: http://farbe.li.tu-berlin.de or http://color.li.tu-berlin.de

TUB registration: 20220101-CEO9/CEO9L0NP.PDF /.PS
application for measurement of offset print output

TUB material: code=rha4ta

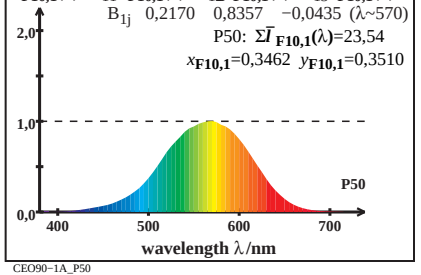
HPE_CIEF10-cone sensitivity $\bar{y}_{max}(\lambda)=1$

$\bar{l}_{F10,1}(\lambda)=B_{11}\bar{x}_{F10,1}(\lambda)+B_{12}\bar{y}_{F10,1}(\lambda)+B_{13}\bar{z}_{F10,1}(\lambda)$

B_{1j} 0,2170 0,8357 −0,0435 (λ~570)

P50: $\Sigma\bar{l}_{F10,1}(\lambda)=23,54$

$x_{F10,1}=0,3462$ $y_{F10,1}=0,3510$



CEO90−1A_P50

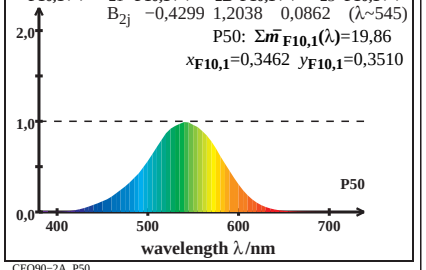
HPE_CIEF10-cone sensitivity $\bar{y}_{max}(\lambda)=1$

$\bar{m}_{F10,1}(\lambda)=B_{21}\bar{x}_{F10,1}(\lambda)+B_{22}\bar{y}_{F10,1}(\lambda)+B_{23}\bar{z}_{F10,1}(\lambda)$

B_{2j} −0,4299 1,2038 0,0862 (λ~545)

P50: $\Sigma\bar{m}_{F10,1}(\lambda)=19,86$

$x_{F10,1}=0,3462$ $y_{F10,1}=0,3510$



CEO90−2A_P50

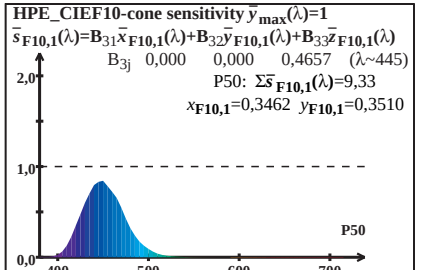
HPE_CIEF10-cone sensitivity $\bar{y}_{max}(\lambda)=1$

$\bar{s}_{F10,1}(\lambda)=B_{31}\bar{x}_{F10,1}(\lambda)+B_{32}\bar{y}_{F10,1}(\lambda)+B_{33}\bar{z}_{F10,1}(\lambda)$

B_{3j} 0,000 0,000 0,4657 (λ~445)

P50: $\Sigma\bar{s}_{F10,1}(\lambda)=9,33$

$x_{F10,1}=0,3462$ $y_{F10,1}=0,3510$



CEO90−3A_P50

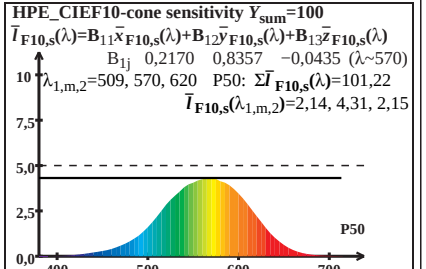
HPE_CIEF10-cone sensitivity $Y_{sum}=100$

$\bar{l}_{F10,s}(\lambda)=B_{11}\bar{x}_{F10,s}(\lambda)+B_{12}\bar{y}_{F10,s}(\lambda)+B_{13}\bar{z}_{F10,s}(\lambda)$

B_{1j} 0,2170 0,8357 −0,0435 (λ~570)

$\lambda_{1,m,2}=509, 570, 620$ P50: $\Sigma\bar{l}_{F10,s}(\lambda)=101,22$

$\bar{l}_{F10,s}(\lambda_{1,m,2})=2,14, 4,31, 2,15$



CEO90−4A_P50

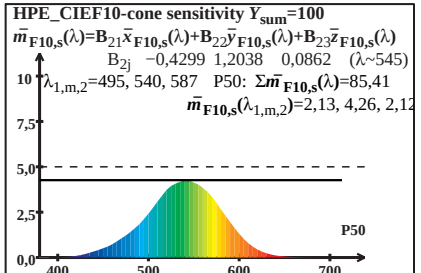
HPE_CIEF10-cone sensitivity $Y_{sum}=100$

$\bar{m}_{F10,s}(\lambda)=B_{21}\bar{x}_{F10,s}(\lambda)+B_{22}\bar{y}_{F10,s}(\lambda)+B_{23}\bar{z}_{F10,s}(\lambda)$

B_{2j} −0,4299 1,2038 0,0862 (λ~545)

$\lambda_{1,m,2}=495, 540, 587$ P50: $\Sigma\bar{m}_{F10,s}(\lambda)=85,41$

$\bar{m}_{F10,s}(\lambda_{1,m,2})=2,13, 4,26, 2,12$



CEO90−5A_P50

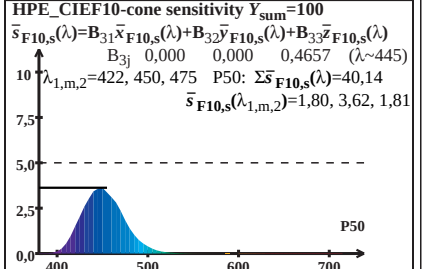
HPE_CIEF10-cone sensitivity $Y_{sum}=100$

$\bar{s}_{F10,s}(\lambda)=B_{31}\bar{x}_{F10,s}(\lambda)+B_{32}\bar{y}_{F10,s}(\lambda)+B_{33}\bar{z}_{F10,s}(\lambda)$

B_{3j} 0,000 0,000 0,4657 (λ~445)

$\lambda_{1,m,2}=422, 450, 475$ P50: $\Sigma\bar{s}_{F10,s}(\lambda)=40,14$

$\bar{s}_{F10,s}(\lambda_{1,m,2})=1,80, 3,62, 1,81$



CEO90−6A_P50

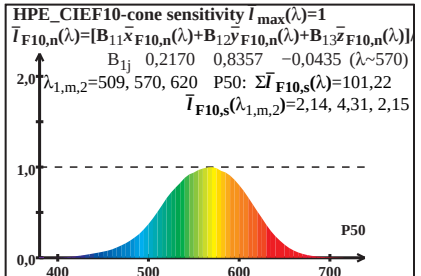
HPE_CIEF10-cone sensitivity $l_{max}(\lambda)=1$

$\bar{l}_{F10,n}(\lambda)=[B_{11}\bar{x}_{F10,n}(\lambda)+B_{12}\bar{y}_{F10,n}(\lambda)+B_{13}\bar{z}_{F10,n}(\lambda)]/$

B_{1j} 0,2170 0,8357 −0,0435 (λ~570)

$\lambda_{1,m,2}=509, 570, 620$ P50: $\Sigma\bar{l}_{F10,s}(\lambda)=101,22$

$\bar{l}_{F10,s}(\lambda_{1,m,2})=2,14, 4,31, 2,15$



CEO90−7A_P50

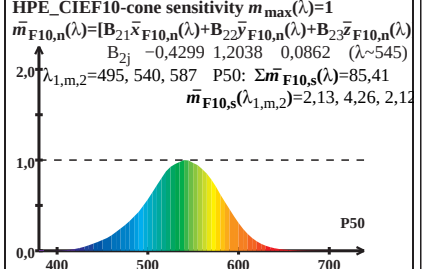
HPE_CIEF10-cone sensitivity $\bar{m}_{max}(\lambda)=1$

$\bar{m}_{F10,n}(\lambda)=[B_{21}\bar{x}_{F10,n}(\lambda)+B_{22}\bar{y}_{F10,n}(\lambda)+B_{23}\bar{z}_{F10,n}(\lambda)]$

B_{2j} −0,4299 1,2038 0,0862 (λ~545)

$\lambda_{1,m,2}=495, 540, 587$ P50: $\Sigma\bar{m}_{F10,s}(\lambda)=85,41$

$\bar{m}_{F10,s}(\lambda_{1,m,2})=2,13, 4,26, 2,12$



CEO90−8A_P50

CEO90−7N

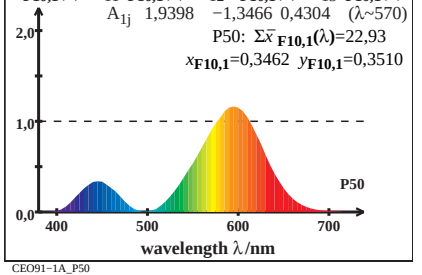
CIEF10 spectral tristimulus values $\bar{y}_{max}(\lambda)=1$

$\bar{x}_{F10,1}(\lambda)=A_{11}\bar{l}_{F10,1}(\lambda)+A_{12}\bar{m}_{F10,1}(\lambda)+A_{13}\bar{s}_{F10,1}(\lambda)$

A_{1j} 1,9398 −1,3466 0,4304 (λ~570)

P50: $\Sigma\bar{x}_{F10,1}(\lambda)=22,93$

$x_{F10,1}=0,3462$ $y_{F10,1}=0,3510$



CEO91−1A_P50

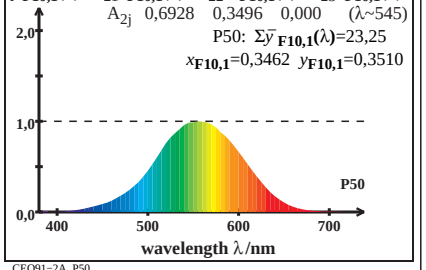
CIEF10 spectral tristimulus values $\bar{y}_{max}(\lambda)=1$

$\bar{y}_{F10,1}(\lambda)=A_{21}\bar{l}_{F10,1}(\lambda)+A_{22}\bar{m}_{F10,1}(\lambda)+A_{23}\bar{s}_{F10,1}(\lambda)$

A_{2j} 0,6928 0,3496 0,000 (λ~545)

P50: $\Sigma\bar{y}_{F10,1}(\lambda)=23,25$

$x_{F10,1}=0,3462$ $y_{F10,1}=0,3510$



CEO91−2A_P50

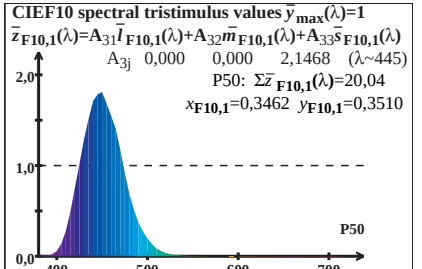
CIEF10 spectral tristimulus values $\bar{y}_{max}(\lambda)=1$

$\bar{z}_{F10,1}(\lambda)=A_{31}\bar{l}_{F10,1}(\lambda)+A_{32}\bar{m}_{F10,1}(\lambda)+A_{33}\bar{s}_{F10,1}(\lambda)$

A_{3j} 0,000 0,000 2,1468 (λ~445)

P50: $\Sigma\bar{z}_{F10,1}(\lambda)=20,04$

$x_{F10,1}=0,3462$ $y_{F10,1}=0,3510$



CEO91−3A_P50

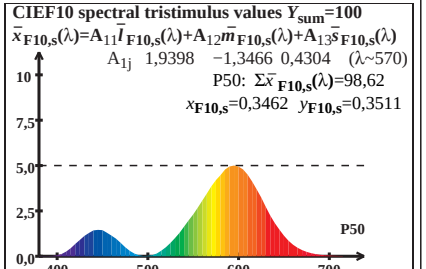
CIEF10 spectral tristimulus values $Y_{sum}=100$

$\bar{x}_{F10,s}(\lambda)=A_{11}\bar{l}_{F10,s}(\lambda)+A_{12}\bar{m}_{F10,s}(\lambda)+A_{13}\bar{s}_{F10,s}(\lambda)$

A_{1j} 1,9398 −1,3466 0,4304 (λ~570)

P50: $\Sigma\bar{x}_{F10,s}(\lambda)=98,62$

$x_{F10,s}=0,3462$ $y_{F10,s}=0,3511$



CEO91−4A_P50

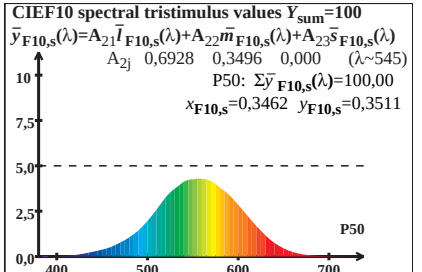
CIEF10 spectral tristimulus values $Y_{sum}=100$

$\bar{y}_{F10,s}(\lambda)=A_{21}\bar{l}_{F10,s}(\lambda)+A_{22}\bar{m}_{F10,s}(\lambda)+A_{23}\bar{s}_{F10,s}(\lambda)$

A_{2j} 0,6928 0,3496 0,000 (λ~545)

P50: $\Sigma\bar{y}_{F10,s}(\lambda)=100,00$

$x_{F10,s}=0,3462$ $y_{F10,s}=0,3511$



CEO91−5A_P50

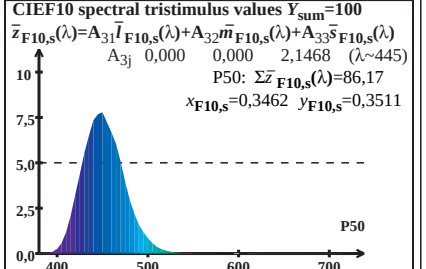
CIEF10 spectral tristimulus values $Y_{sum}=100$

$\bar{z}_{F10,s}(\lambda)=A_{31}\bar{l}_{F10,s}(\lambda)+A_{32}\bar{m}_{F10,s}(\lambda)+A_{33}\bar{s}_{F10,s}(\lambda)$

A_{3j} 0,000 0,000 2,1468 (λ~445)

P50: $\Sigma\bar{z}_{F10,s}(\lambda)=86,17$

$x_{F10,s}=0,3462$ $y_{F10,s}=0,3511$



CEO91−6A_P50

CIEF10 spectral tristimulus values $\bar{y}_{max}(\lambda)=1$

$\bar{y}_{F10,1}(\lambda)=A_{21}\bar{l}_{F10,1}(\lambda)+A_{22}\bar{m}_{F10,1}(\lambda)+A_{23}\bar{s}_{F10,1}(\lambda)$

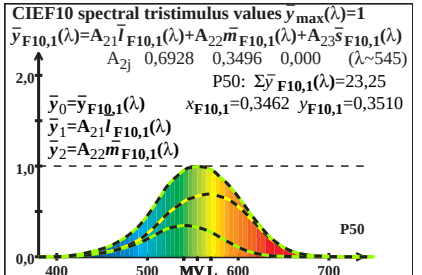
A_{2j} 0,6928 0,3496 0,000 (λ~545)

P50: $\Sigma\bar{y}_{F10,1}(\lambda)=23,25$

$\bar{y}_0=\bar{y}_{F10,1}(\lambda)$ $x_{F10,1}=0,3462$ $y_{F10,1}=0,3510$

$\bar{y}_1=A_{21}\bar{l}_{F10,1}(\lambda)$

$\bar{y}_2=A_{22}\bar{m}_{F10,1}(\lambda)$



CEO91−7A_P50

CIEF10 spectral tristimulus values $\bar{y}_{max}(\lambda)=1$

$\bar{y}_{F10,1}(\lambda)=A_{21}\bar{l}_{F10,1}(\lambda)+A_{22}\bar{m}_{F10,1}(\lambda)+A_{23}\bar{s}_{F10,1}(\lambda)$

A_{2j} 0,6928 0,3496 0,000 (λ~545)

P50: $\Sigma\bar{y}_{F10,1}(\lambda)=23,25$

$\bar{y}_0=\bar{y}_{F10,1}(\lambda)$ $x_{F10,1}=0,3462$ $y_{F10,1}=0,3510$

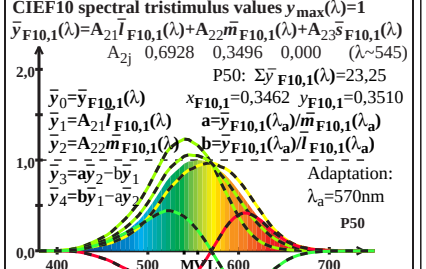
$\bar{y}_1=A_{21}\bar{l}_{F10,1}(\lambda)$ $a=\bar{y}_{F10,1}(\lambda_a)/\bar{m}_{F10,1}(\lambda_a)$

$\bar{y}_2=A_{22}\bar{m}_{F10,1}(\lambda)$ $b=\bar{y}_{F10,1}(\lambda_a)/\bar{l}_{F10,1}(\lambda_a)$

$\bar{y}_3=a\bar{y}_2-b\bar{y}_1$

$\bar{y}_4=b\bar{y}_1-a\bar{y}_2$

Adaptation:
λ_a=570nm



CEO91−8A_P50

CEO91−7N

see similar files: http://farbe.li.tu-berlin.de/CEO9/CEO9.HTM
technical information: http://farbe.li.tu-berlin.de or http://color.li.tu-berlin.de

TUB registration: 20220101-CEO9/CEO9L0NP.PDF /.PS
application for measurement of offset print output

TUB material: code=rha4ta

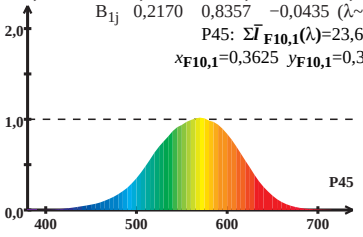
HPE_CIEF10-cone sensitivity $\bar{y}_{max}(\lambda)=1$

$\bar{l}_{F10,1}(\lambda)=B_{11}\bar{x}_{F10,1}(\lambda)+B_{12}\bar{y}_{F10,1}(\lambda)+B_{13}\bar{z}_{F10,1}(\lambda)$

B_{1j} 0,2170 0,8357 −0,0435 (λ~570)

P45: $\Sigma\bar{l}_{F10,1}(\lambda)=23,64$

$x_{F10,1}=0,3625$ $y_{F10,1}=0,3625$



CEO90−1A_P45

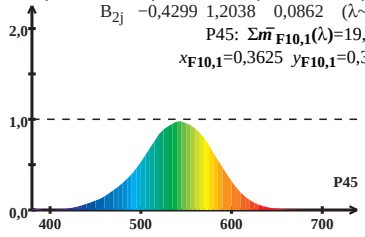
HPE_CIEF10-cone sensitivity $\bar{y}_{max}(\lambda)=1$

$\bar{m}_{F10,1}(\lambda)=B_{21}\bar{x}_{F10,1}(\lambda)+B_{22}\bar{y}_{F10,1}(\lambda)+B_{23}\bar{z}_{F10,1}(\lambda)$

B_{2j} −0,4299 1,2038 0,0862 (λ~545)

P45: $\Sigma\bar{m}_{F10,1}(\lambda)=19,46$

$x_{F10,1}=0,3625$ $y_{F10,1}=0,3625$



CEO90−2A_P45

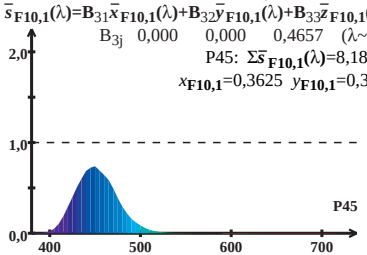
HPE_CIEF10-cone sensitivity $\bar{y}_{max}(\lambda)=1$

$\bar{s}_{F10,1}(\lambda)=B_{31}\bar{x}_{F10,1}(\lambda)+B_{32}\bar{y}_{F10,1}(\lambda)+B_{33}\bar{z}_{F10,1}(\lambda)$

B_{3j} 0,000 0,000 0,4657 (λ~445)

P45: $\Sigma\bar{s}_{F10,1}(\lambda)=8,18$

$x_{F10,1}=0,3625$ $y_{F10,1}=0,3625$



CEO90−3A_P45

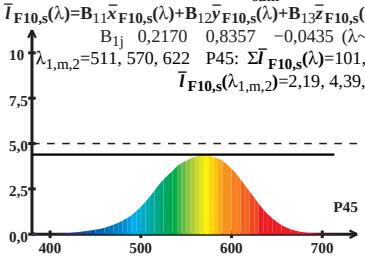
HPE_CIEF10-cone sensitivity $Y_{sum}=100$

$\bar{l}_{F10,s}(\lambda)=B_{11}\bar{x}_{F10,s}(\lambda)+B_{12}\bar{y}_{F10,s}(\lambda)+B_{13}\bar{z}_{F10,s}(\lambda)$

B_{1j} 0,2170 0,8357 −0,0435 (λ~570)

$\lambda_{1,m,2}$=511, 570, 622 P45: $\Sigma\bar{l}_{F10,s}(\lambda)=101,97$

$\bar{l}_{F10,s}(\lambda_{1,m,2})$=2,19, 4,39, 2,19



CEO90−4A_P45

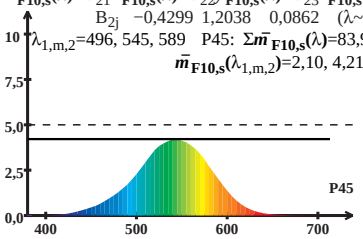
HPE_CIEF10-cone sensitivity $Y_{sum}=100$

$\bar{m}_{F10,s}(\lambda)=B_{21}\bar{x}_{F10,s}(\lambda)+B_{22}\bar{y}_{F10,s}(\lambda)+B_{23}\bar{z}_{F10,s}(\lambda)$

B_{2j} −0,4299 1,2038 0,0862 (λ~545)

$\lambda_{1,m,2}$=496, 545, 589 P45: $\Sigma\bar{m}_{F10,s}(\lambda)=83,92$

$\bar{m}_{F10,s}(\lambda_{1,m,2})$=2,10, 4,21, 2,09



CEO90−5A_P45

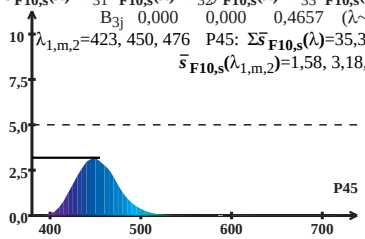
HPE_CIEF10-cone sensitivity $Y_{sum}=100$

$\bar{s}_{F10,s}(\lambda)=B_{31}\bar{x}_{F10,s}(\lambda)+B_{32}\bar{y}_{F10,s}(\lambda)+B_{33}\bar{z}_{F10,s}(\lambda)$

B_{3j} 0,000 0,000 0,4657 (λ~445)

$\lambda_{1,m,2}$=423, 450, 476 P45: $\Sigma\bar{s}_{F10,s}(\lambda)=35,30$

$\bar{s}_{F10,s}(\lambda_{1,m,2})$=1,58, 3,18, 1,59



CEO90−6A_P45

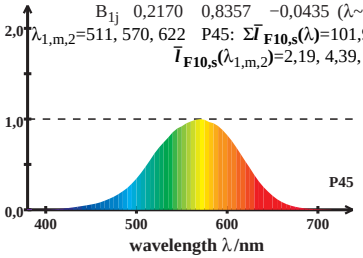
HPE_CIEF10-cone sensitivity $l_{max}(\lambda)=1$

$\bar{l}_{F10,n}(\lambda)=[B_{11}\bar{x}_{F10,n}(\lambda)+B_{12}\bar{y}_{F10,n}(\lambda)+B_{13}\bar{z}_{F10,n}(\lambda)]/$

B_{1j} 0,2170 0,8357 −0,0435 (λ~570)

$\lambda_{1,m,2}$=511, 570, 622 P45: $\Sigma\bar{l}_{F10,s}(\lambda)=101,97$

$\bar{l}_{F10,s}(\lambda_{1,m,2})$=2,19, 4,39, 2,19



CEO90−7A_P45

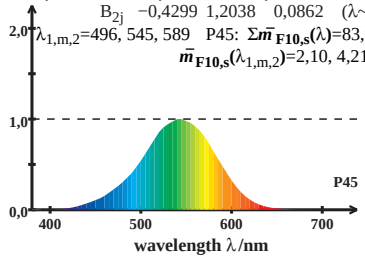
HPE_CIEF10-cone sensitivity $\bar{m}_{max}(\lambda)=1$

$\bar{m}_{F10,n}(\lambda)=[B_{21}\bar{x}_{F10,n}(\lambda)+B_{22}\bar{y}_{F10,n}(\lambda)+B_{23}\bar{z}_{F10,n}(\lambda)]$

B_{2j} −0,4299 1,2038 0,0862 (λ~545)

$\lambda_{1,m,2}$=496, 545, 589 P45: $\Sigma\bar{m}_{F10,s}(\lambda)=83,92$

$\bar{m}_{F10,s}(\lambda_{1,m,2})$=2,10, 4,21, 2,09



CEO90−8A_P45

CEO90−7N

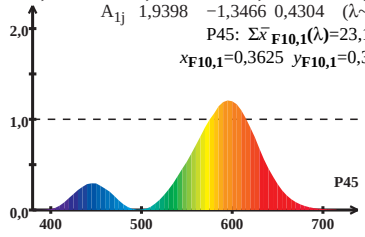
CIEF10 spectral tristimulus values $\bar{y}_{max}(\lambda)=1$

$\bar{x}_{F10,1}(\lambda)=A_{11}\bar{l}_{F10,1}(\lambda)+A_{12}\bar{m}_{F10,1}(\lambda)+A_{13}\bar{s}_{F10,1}(\lambda)$

A_{1j} 1,9398 −1,3466 0,4304 (λ~570)

P45: $\Sigma\bar{x}_{F10,1}(\lambda)=23,19$

$x_{F10,1}=0,3625$ $y_{F10,1}=0,3625$



CEO91−1A_P45

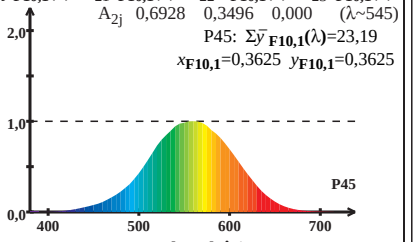
CIEF10 spectral tristimulus values $\bar{y}_{max}(\lambda)=1$

$\bar{y}_{F10,1}(\lambda)=A_{21}\bar{l}_{F10,1}(\lambda)+A_{22}\bar{m}_{F10,1}(\lambda)+A_{23}\bar{s}_{F10,1}(\lambda)$

A_{2j} 0,6928 0,3496 0,000 (λ~545)

P45: $\Sigma\bar{y}_{F10,1}(\lambda)=23,19$

$x_{F10,1}=0,3625$ $y_{F10,1}=0,3625$



CEO91−2A_P45

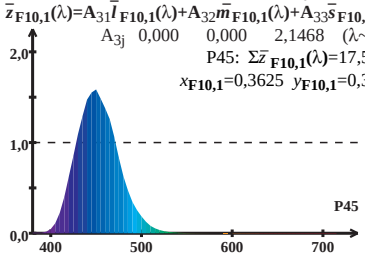
CIEF10 spectral tristimulus values $\bar{y}_{max}(\lambda)=1$

$\bar{z}_{F10,1}(\lambda)=A_{31}\bar{l}_{F10,1}(\lambda)+A_{32}\bar{m}_{F10,1}(\lambda)+A_{33}\bar{s}_{F10,1}(\lambda)$

A_{3j} 0,000 0,000 2,1468 (λ~445)

P45: $\Sigma\bar{z}_{F10,1}(\lambda)=17,57$

$x_{F10,1}=0,3625$ $y_{F10,1}=0,3625$



CEO91−3A_P45

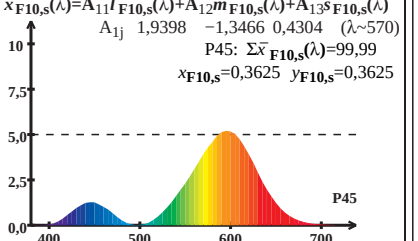
CIEF10 spectral tristimulus values $Y_{sum}=100$

$\bar{x}_{F10,s}(\lambda)=A_{11}\bar{l}_{F10,s}(\lambda)+A_{12}\bar{m}_{F10,s}(\lambda)+A_{13}\bar{s}_{F10,s}(\lambda)$

A_{1j} 1,9398 −1,3466 0,4304 (λ~570)

P45: $\Sigma\bar{x}_{F10,s}(\lambda)=99,99$

$x_{F10,s}=0,3625$ $y_{F10,s}=0,3625$



CEO91−4A_P45

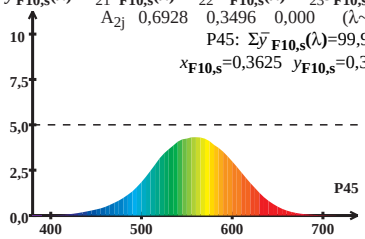
CIEF10 spectral tristimulus values $Y_{sum}=100$

$\bar{y}_{F10,s}(\lambda)=A_{21}\bar{l}_{F10,s}(\lambda)+A_{22}\bar{m}_{F10,s}(\lambda)+A_{23}\bar{s}_{F10,s}(\lambda)$

A_{2j} 0,6928 0,3496 0,000 (λ~545)

P45: $\Sigma\bar{y}_{F10,s}(\lambda)=99,99$

$x_{F10,s}=0,3625$ $y_{F10,s}=0,3625$



CEO91−5A_P45

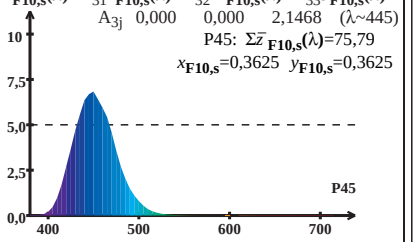
CIEF10 spectral tristimulus values $Y_{sum}=100$

$\bar{z}_{F10,s}(\lambda)=A_{31}\bar{l}_{F10,s}(\lambda)+A_{32}\bar{m}_{F10,s}(\lambda)+A_{33}\bar{s}_{F10,s}(\lambda)$

A_{3j} 0,000 0,000 2,1468 (λ~445)

P45: $\Sigma\bar{z}_{F10,s}(\lambda)=75,79$

$x_{F10,s}=0,3625$ $y_{F10,s}=0,3625$



CEO91−6A_P45

CIEF10 spectral tristimulus values $\bar{y}_{max}(\lambda)=1$

$\bar{y}_{F10,1}(\lambda)=A_{21}\bar{l}_{F10,1}(\lambda)+A_{22}\bar{m}_{F10,1}(\lambda)+A_{23}\bar{s}_{F10,1}(\lambda)$

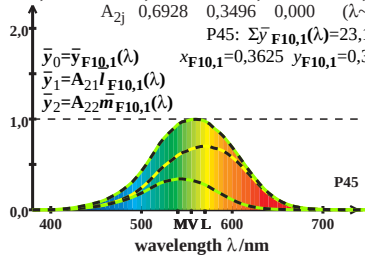
A_{2j} 0,6928 0,3496 0,000 (λ~545)

P45: $\Sigma\bar{y}_{F10,1}(\lambda)=23,19$

$\bar{y}_0=\bar{y}_{F10,1}(\lambda)$ $x_{F10,1}=0,3625$ $y_{F10,1}=0,3625$

$\bar{y}_1=A_{21}\bar{l}_{F10,1}(\lambda)$

$\bar{y}_2=A_{22}\bar{m}_{F10,1}(\lambda)$



CEO91−7A_P45

CIEF10 spectral tristimulus values $\bar{y}_{max}(\lambda)=1$

$\bar{y}_{F10,1}(\lambda)=A_{21}\bar{l}_{F10,1}(\lambda)+A_{22}\bar{m}_{F10,1}(\lambda)+A_{23}\bar{s}_{F10,1}(\lambda)$

A_{2j} 0,6928 0,3496 0,000 (λ~545)

P45: $\Sigma\bar{y}_{F10,1}(\lambda)=23,19$

$\bar{y}_0=\bar{y}_{F10,1}(\lambda)$ $x_{F10,1}=0,3625$ $y_{F10,1}=0,3625$

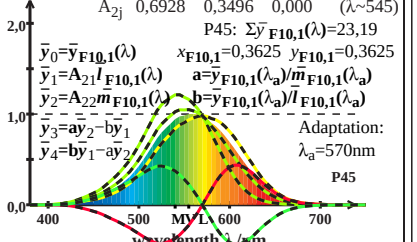
$\bar{y}_1=A_{21}\bar{l}_{F10,1}(\lambda)$ $a=\bar{y}_{F10,1}(\lambda_a)/\bar{m}_{F10,1}(\lambda_a)$

$\bar{y}_2=A_{22}\bar{m}_{F10,1}(\lambda)$ $b=\bar{y}_{F10,1}(\lambda_a)/\bar{l}_{F10,1}(\lambda_a)$

$\bar{y}_3=a\bar{y}_2-b\bar{y}_1$

$\bar{y}_4=b\bar{y}_1-a\bar{y}_2$

Adaptation:
λ_a=570nm



CEO91−8A_P45

see similar files: http://farbe.li.tu-berlin.de/CEO9/CEO9.HTM
technical information: http://farbe.li.tu-berlin.de or http://color.li.tu-berlin.de

TUB registration: 20220101-CEO9/CEO9L0NP.PDF /.PS
application for measurement of offset print output

TUB material: code=rha4ta

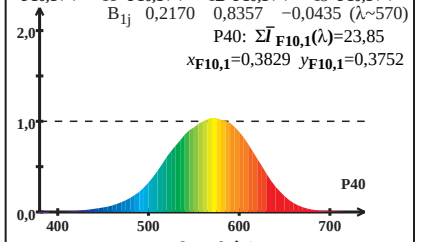
HPE_CIEF10-cone sensitivity $\bar{y}_{max}(\lambda)=1$

$\bar{l}_{F10,1}(\lambda)=B_{11}\bar{x}_{F10,1}(\lambda)+B_{12}\bar{y}_{F10,1}(\lambda)+B_{13}\bar{z}_{F10,1}(\lambda)$

B_{1j} 0,2170 0,8357 −0,0435 (λ~570)

P40: $\Sigma\bar{l}_{F10,1}(\lambda)=23,85$

$x_{F10,1}=0,3829$ $y_{F10,1}=0,3752$



CEO90−1A_P40

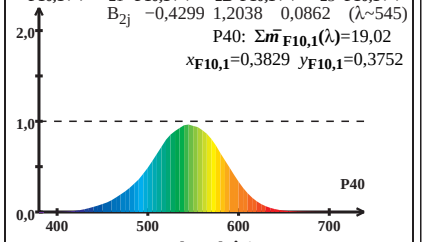
HPE_CIEF10-cone sensitivity $\bar{y}_{max}(\lambda)=1$

$\bar{m}_{F10,1}(\lambda)=B_{21}\bar{x}_{F10,1}(\lambda)+B_{22}\bar{y}_{F10,1}(\lambda)+B_{23}\bar{z}_{F10,1}(\lambda)$

B_{2j} −0,4299 1,2038 0,0862 (λ~545)

P40: $\Sigma\bar{m}_{F10,1}(\lambda)=19,02$

$x_{F10,1}=0,3829$ $y_{F10,1}=0,3752$



CEO90−2A_P40

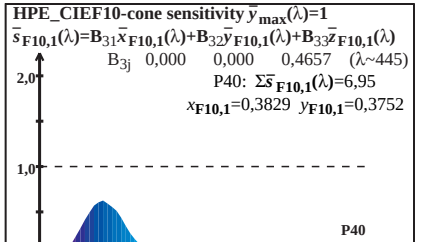
HPE_CIEF10-cone sensitivity $\bar{y}_{max}(\lambda)=1$

$\bar{s}_{F10,1}(\lambda)=B_{31}\bar{x}_{F10,1}(\lambda)+B_{32}\bar{y}_{F10,1}(\lambda)+B_{33}\bar{z}_{F10,1}(\lambda)$

B_{3j} 0,000 0,000 0,4657 (λ~445)

P40: $\Sigma\bar{s}_{F10,1}(\lambda)=6,95$

$x_{F10,1}=0,3829$ $y_{F10,1}=0,3752$



CEO90−3A_P40

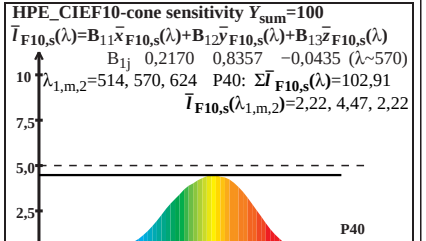
HPE_CIEF10-cone sensitivity $Y_{sum}=100$

$\bar{l}_{F10,s}(\lambda)=B_{11}\bar{x}_{F10,s}(\lambda)+B_{12}\bar{y}_{F10,s}(\lambda)+B_{13}\bar{z}_{F10,s}(\lambda)$

B_{1j} 0,2170 0,8357 −0,0435 (λ~570)

$\lambda_{1,m,2}$=514, 570, 624 P40: $\Sigma\bar{l}_{F10,s}(\lambda)=102,91$

$\bar{l}_{F10,s}(\lambda_{1,m,2})$=2,22, 4,47, 2,22



CEO90−4A_P40

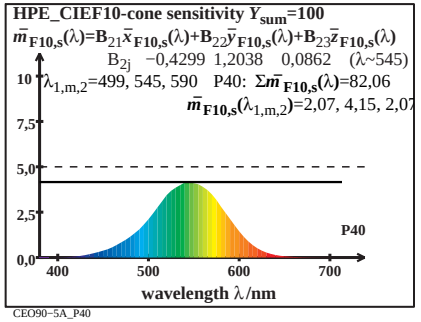
HPE_CIEF10-cone sensitivity $Y_{sum}=100$

$\bar{m}_{F10,s}(\lambda)=B_{21}\bar{x}_{F10,s}(\lambda)+B_{22}\bar{y}_{F10,s}(\lambda)+B_{23}\bar{z}_{F10,s}(\lambda)$

B_{2j} −0,4299 1,2038 0,0862 (λ~545)

$\lambda_{1,m,2}$=499, 545, 590 P40: $\Sigma\bar{m}_{F10,s}(\lambda)=82,06$

$\bar{m}_{F10,s}(\lambda_{1,m,2})$=2,07, 4,15, 2,07



CEO90−5A_P40

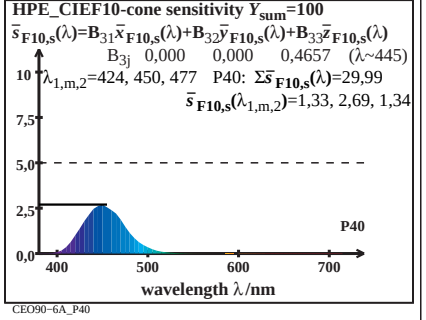
HPE_CIEF10-cone sensitivity $Y_{sum}=100$

$\bar{s}_{F10,s}(\lambda)=B_{31}\bar{x}_{F10,s}(\lambda)+B_{32}\bar{y}_{F10,s}(\lambda)+B_{33}\bar{z}_{F10,s}(\lambda)$

B_{3j} 0,000 0,000 0,4657 (λ~445)

$\lambda_{1,m,2}$=424, 450, 477 P40: $\Sigma\bar{s}_{F10,s}(\lambda)=29,99$

$\bar{s}_{F10,s}(\lambda_{1,m,2})$=1,33, 2,69, 1,34



CEO90−6A_P40

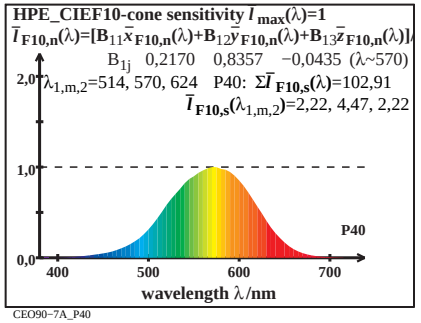
HPE_CIEF10-cone sensitivity $\bar{l}_{max}(\lambda)=1$

$\bar{l}_{F10,n}(\lambda)=[B_{11}\bar{x}_{F10,n}(\lambda)+B_{12}\bar{y}_{F10,n}(\lambda)+B_{13}\bar{z}_{F10,n}(\lambda)]/$

B_{1j} 0,2170 0,8357 −0,0435 (λ~570)

$\lambda_{1,m,2}$=514, 570, 624 P40: $\Sigma\bar{l}_{F10,s}(\lambda)=102,91$

$\bar{l}_{F10,s}(\lambda_{1,m,2})$=2,22, 4,47, 2,22



CEO90−7A_P40

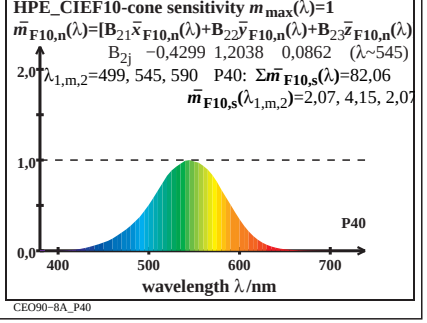
HPE_CIEF10-cone sensitivity $\bar{m}_{max}(\lambda)=1$

$\bar{m}_{F10,n}(\lambda)=[B_{21}\bar{x}_{F10,n}(\lambda)+B_{22}\bar{y}_{F10,n}(\lambda)+B_{23}\bar{z}_{F10,n}(\lambda)]$

B_{2j} −0,4299 1,2038 0,0862 (λ~545)

$\lambda_{1,m,2}$=499, 545, 590 P40: $\Sigma\bar{m}_{F10,s}(\lambda)=82,06$

$\bar{m}_{F10,s}(\lambda_{1,m,2})$=2,07, 4,15, 2,07



CEO90−8A_P40

CEO90−7N

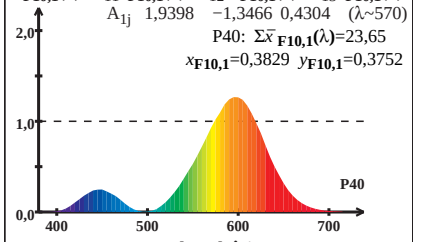
CIEF10 spectral tristimulus values $\bar{y}_{max}(\lambda)=1$

$\bar{x}_{F10,1}(\lambda)=A_{11}\bar{l}_{F10,1}(\lambda)+A_{12}\bar{m}_{F10,1}(\lambda)+A_{13}\bar{s}_{F10,1}(\lambda)$

A_{1j} 1,9398 −1,3466 0,4304 (λ~570)

P40: $\Sigma\bar{x}_{F10,1}(\lambda)=23,65$

$x_{F10,1}=0,3829$ $y_{F10,1}=0,3752$



CEO91−1A_P40

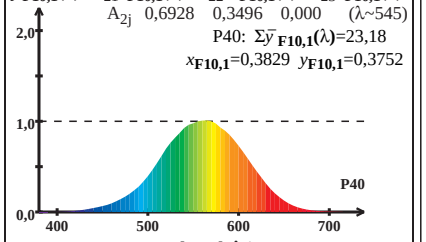
CIEF10 spectral tristimulus values $\bar{y}_{max}(\lambda)=1$

$\bar{y}_{F10,1}(\lambda)=A_{21}\bar{l}_{F10,1}(\lambda)+A_{22}\bar{m}_{F10,1}(\lambda)+A_{23}\bar{s}_{F10,1}(\lambda)$

A_{2j} 0,6928 0,3496 0,000 (λ~545)

P40: $\Sigma\bar{y}_{F10,1}(\lambda)=23,18$

$x_{F10,1}=0,3829$ $y_{F10,1}=0,3752$



CEO91−2A_P40

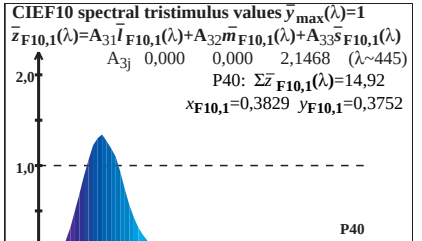
CIEF10 spectral tristimulus values $\bar{y}_{max}(\lambda)=1$

$\bar{z}_{F10,1}(\lambda)=A_{31}\bar{l}_{F10,1}(\lambda)+A_{32}\bar{m}_{F10,1}(\lambda)+A_{33}\bar{s}_{F10,1}(\lambda)$

A_{3j} 0,000 0,000 2,1468 (λ~445)

P40: $\Sigma\bar{z}_{F10,1}(\lambda)=14,92$

$x_{F10,1}=0,3829$ $y_{F10,1}=0,3752$



CEO91−3A_P40

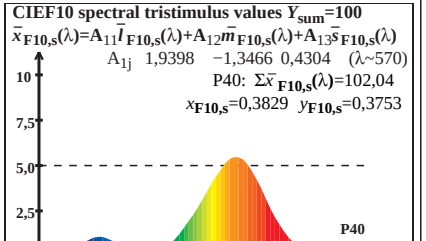
CIEF10 spectral tristimulus values $Y_{sum}=100$

$\bar{x}_{F10,s}(\lambda)=A_{11}\bar{l}_{F10,s}(\lambda)+A_{12}\bar{m}_{F10,s}(\lambda)+A_{13}\bar{s}_{F10,s}(\lambda)$

A_{1j} 1,9398 −1,3466 0,4304 (λ~570)

P40: $\Sigma\bar{x}_{F10,s}(\lambda)=102,04$

$x_{F10,s}=0,3829$ $y_{F10,s}=0,3753$



CEO91−4A_P40

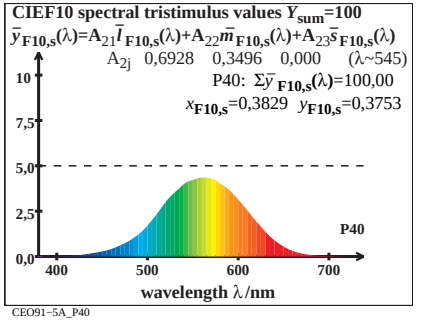
CIEF10 spectral tristimulus values $Y_{sum}=100$

$\bar{y}_{F10,s}(\lambda)=A_{21}\bar{l}_{F10,s}(\lambda)+A_{22}\bar{m}_{F10,s}(\lambda)+A_{23}\bar{s}_{F10,s}(\lambda)$

A_{2j} 0,6928 0,3496 0,000 (λ~545)

P40: $\Sigma\bar{y}_{F10,s}(\lambda)=100,00$

$x_{F10,s}=0,3829$ $y_{F10,s}=0,3753$



CEO91−5A_P40

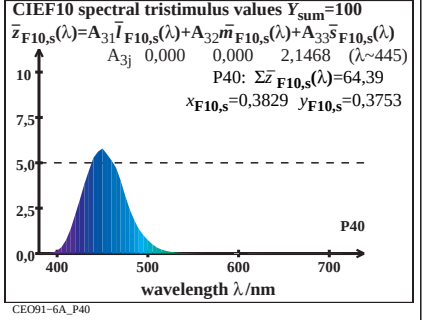
CIEF10 spectral tristimulus values $Y_{sum}=100$

$\bar{z}_{F10,s}(\lambda)=A_{31}\bar{l}_{F10,s}(\lambda)+A_{32}\bar{m}_{F10,s}(\lambda)+A_{33}\bar{s}_{F10,s}(\lambda)$

A_{3j} 0,000 0,000 2,1468 (λ~445)

P40: $\Sigma\bar{z}_{F10,s}(\lambda)=64,39$

$x_{F10,s}=0,3829$ $y_{F10,s}=0,3753$



CEO91−6A_P40

CIEF10 spectral tristimulus values $\bar{y}_{max}(\lambda)=1$

$\bar{y}_{F10,1}(\lambda)=A_{21}\bar{l}_{F10,1}(\lambda)+A_{22}\bar{m}_{F10,1}(\lambda)+A_{23}\bar{s}_{F10,1}(\lambda)$

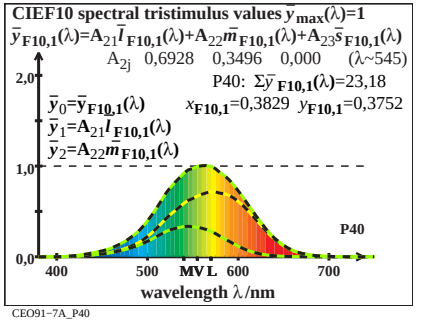
A_{2j} 0,6928 0,3496 0,000 (λ~545)

P40: $\Sigma\bar{y}_{F10,1}(\lambda)=23,18$

$\bar{y}_0=\bar{y}_{F10,1}(\lambda)$ $x_{F10,1}=0,3829$ $y_{F10,1}=0,3752$

$\bar{y}_1=A_{21}\bar{l}_{F10,1}(\lambda)$

$\bar{y}_2=A_{22}\bar{m}_{F10,1}(\lambda)$



CEO91−7A_P40

CIEF10 spectral tristimulus values $\bar{y}_{max}(\lambda)=1$

$\bar{y}_{F10,1}(\lambda)=A_{21}\bar{l}_{F10,1}(\lambda)+A_{22}\bar{m}_{F10,1}(\lambda)+A_{23}\bar{s}_{F10,1}(\lambda)$

A_{2j} 0,6928 0,3496 0,000 (λ~545)

P40: $\Sigma\bar{y}_{F10,1}(\lambda)=23,18$

$\bar{y}_0=\bar{y}_{F10,1}(\lambda)$ $x_{F10,1}=0,3829$ $y_{F10,1}=0,3752$

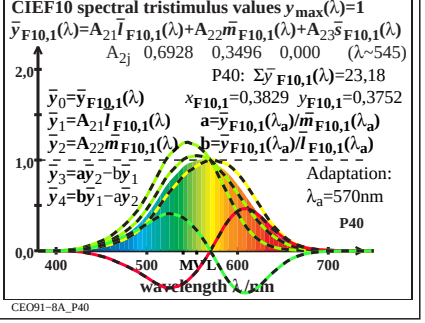
$\bar{y}_1=A_{21}\bar{l}_{F10,1}(\lambda)$ $a=\bar{y}_{F10,1}(\lambda_a)/\bar{m}_{F10,1}(\lambda_a)$

$\bar{y}_2=A_{22}\bar{m}_{F10,1}(\lambda)$ $b=\bar{y}_{F10,1}(\lambda_a)/\bar{l}_{F10,1}(\lambda_a)$

$\bar{y}_3=a\bar{y}_2-b\bar{y}_1$

$\bar{y}_4=b\bar{y}_1-a\bar{y}_2$

Adaptation:
λ_a=570nm



CEO91−8A_P40

CEO91−7N

see similar files: http://farbe.li.tu-berlin.de/CEO9/CEO9.HTM
technical information: http://farbe.li.tu-berlin.de or http://color.li.tu-berlin.de

TUB registration: 20220101-CEO9/CEO9L0NP.PDF /.PS
application for measurement of offset print output

TUB material: code=rha4ta

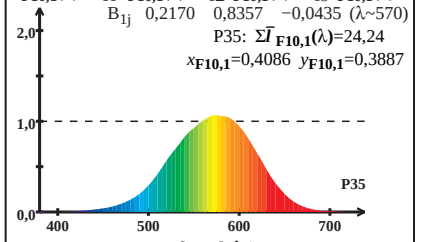
HPE_CIEF10-cone sensitivity $\bar{y}_{max}(\lambda)=1$

$\bar{l}_{F10,1}(\lambda)=B_{11}\bar{x}_{F10,1}(\lambda)+B_{12}\bar{y}_{F10,1}(\lambda)+B_{13}\bar{z}_{F10,1}(\lambda)$

B_{1j} 0,2170 0,8357 −0,0435 (λ~570)

P35: $\Sigma\bar{l}_{F10,1}(\lambda)=24,24$

$x_{F10,1}=0,4086$ $y_{F10,1}=0,3887$



CEO90−1A_P35

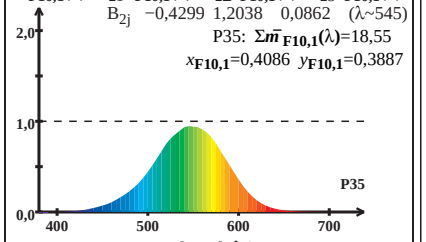
HPE_CIEF10-cone sensitivity $\bar{y}_{max}(\lambda)=1$

$\bar{m}_{F10,1}(\lambda)=B_{21}\bar{x}_{F10,1}(\lambda)+B_{22}\bar{y}_{F10,1}(\lambda)+B_{23}\bar{z}_{F10,1}(\lambda)$

B_{2j} −0,4299 1,2038 0,0862 (λ~545)

P35: $\Sigma\bar{m}_{F10,1}(\lambda)=18,55$

$x_{F10,1}=0,4086$ $y_{F10,1}=0,3887$



CEO90−2A_P35

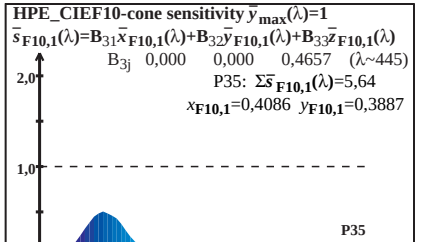
HPE_CIEF10-cone sensitivity $\bar{y}_{max}(\lambda)=1$

$\bar{s}_{F10,1}(\lambda)=B_{31}\bar{x}_{F10,1}(\lambda)+B_{32}\bar{y}_{F10,1}(\lambda)+B_{33}\bar{z}_{F10,1}(\lambda)$

B_{3j} 0,000 0,000 0,4657 (λ~445)

P35: $\Sigma\bar{s}_{F10,1}(\lambda)=5,64$

$x_{F10,1}=0,4086$ $y_{F10,1}=0,3887$



CEO90−3A_P35

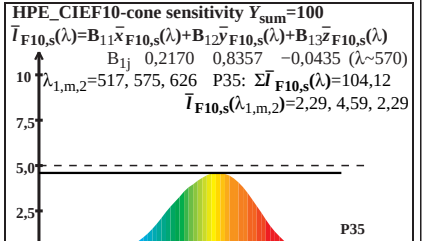
HPE_CIEF10-cone sensitivity $Y_{sum}=100$

$\bar{l}_{F10,s}(\lambda)=B_{11}\bar{x}_{F10,s}(\lambda)+B_{12}\bar{y}_{F10,s}(\lambda)+B_{13}\bar{z}_{F10,s}(\lambda)$

B_{1j} 0,2170 0,8357 −0,0435 (λ~570)

$\lambda_{1,m,2}=517, 575, 626$ P35: $\Sigma\bar{l}_{F10,s}(\lambda)=104,12$

$\bar{l}_{F10,s}(\lambda_{1,m,2})=2,29, 4,59, 2,29$



CEO90−4A_P35

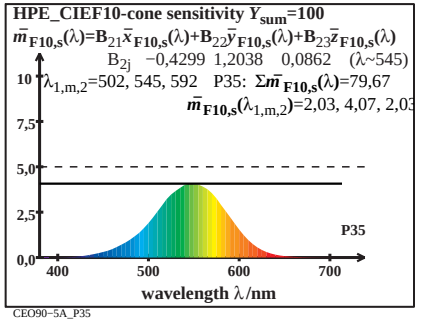
HPE_CIEF10-cone sensitivity $Y_{sum}=100$

$\bar{m}_{F10,s}(\lambda)=B_{21}\bar{x}_{F10,s}(\lambda)+B_{22}\bar{y}_{F10,s}(\lambda)+B_{23}\bar{z}_{F10,s}(\lambda)$

B_{2j} −0,4299 1,2038 0,0862 (λ~545)

$\lambda_{1,m,2}=502, 545, 592$ P35: $\Sigma\bar{m}_{F10,s}(\lambda)=79,67$

$\bar{m}_{F10,s}(\lambda_{1,m,2})=2,03, 4,07, 2,03$



CEO90−5A_P35

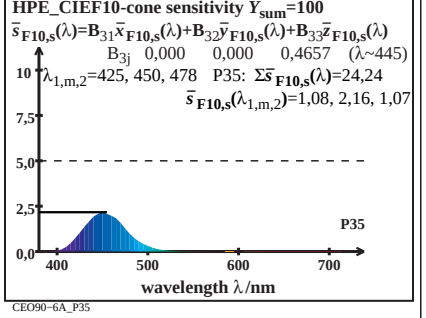
HPE_CIEF10-cone sensitivity $Y_{sum}=100$

$\bar{s}_{F10,s}(\lambda)=B_{31}\bar{x}_{F10,s}(\lambda)+B_{32}\bar{y}_{F10,s}(\lambda)+B_{33}\bar{z}_{F10,s}(\lambda)$

B_{3j} 0,000 0,000 0,4657 (λ~445)

$\lambda_{1,m,2}=425, 450, 478$ P35: $\Sigma\bar{s}_{F10,s}(\lambda)=24,24$

$\bar{s}_{F10,s}(\lambda_{1,m,2})=1,08, 2,16, 1,07$



CEO90−6A_P35

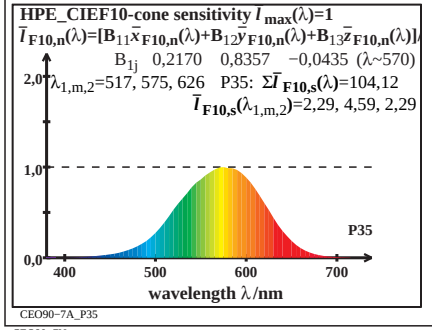
HPE_CIEF10-cone sensitivity $\bar{l}_{max}(\lambda)=1$

$\bar{l}_{F10,n}(\lambda)=[B_{11}\bar{x}_{F10,n}(\lambda)+B_{12}\bar{y}_{F10,n}(\lambda)+B_{13}\bar{z}_{F10,n}(\lambda)]/$

B_{1j} 0,2170 0,8357 −0,0435 (λ~570)

$\lambda_{1,m,2}=517, 575, 626$ P35: $\Sigma\bar{l}_{F10,s}(\lambda)=104,12$

$\bar{l}_{F10,s}(\lambda_{1,m,2})=2,29, 4,59, 2,29$



CEO90−7A_P35

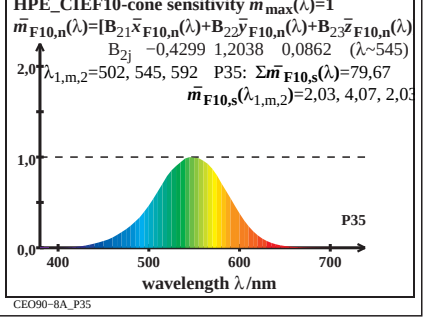
HPE_CIEF10-cone sensitivity $\bar{m}_{max}(\lambda)=1$

$\bar{m}_{F10,n}(\lambda)=[B_{21}\bar{x}_{F10,n}(\lambda)+B_{22}\bar{y}_{F10,n}(\lambda)+B_{23}\bar{z}_{F10,n}(\lambda)]$

B_{2j} −0,4299 1,2038 0,0862 (λ~545)

$\lambda_{1,m,2}=502, 545, 592$ P35: $\Sigma\bar{m}_{F10,s}(\lambda)=79,67$

$\bar{m}_{F10,s}(\lambda_{1,m,2})=2,03, 4,07, 2,03$



CEO90−8A_P35

CEO90−7N

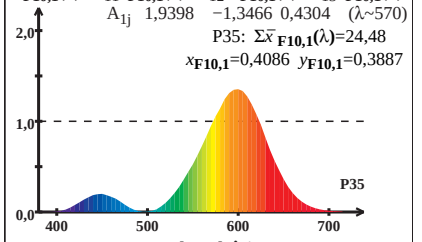
CIEF10 spectral tristimulus values $\bar{y}_{max}(\lambda)=1$

$\bar{x}_{F10,1}(\lambda)=A_{11}\bar{l}_{F10,1}(\lambda)+A_{12}\bar{m}_{F10,1}(\lambda)+A_{13}\bar{s}_{F10,1}(\lambda)$

A_{1j} 1,9398 −1,3466 0,4304 (λ~570)

P35: $\Sigma\bar{x}_{F10,1}(\lambda)=24,48$

$x_{F10,1}=0,4086$ $y_{F10,1}=0,3887$



CEO91−1A_P35

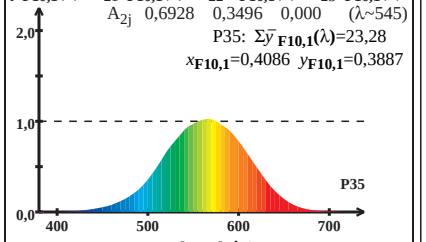
CIEF10 spectral tristimulus values $\bar{y}_{max}(\lambda)=1$

$\bar{y}_{F10,1}(\lambda)=A_{21}\bar{l}_{F10,1}(\lambda)+A_{22}\bar{m}_{F10,1}(\lambda)+A_{23}\bar{s}_{F10,1}(\lambda)$

A_{2j} 0,6928 0,3496 0,000 (λ~545)

P35: $\Sigma\bar{y}_{F10,1}(\lambda)=23,28$

$x_{F10,1}=0,4086$ $y_{F10,1}=0,3887$



CEO91−2A_P35

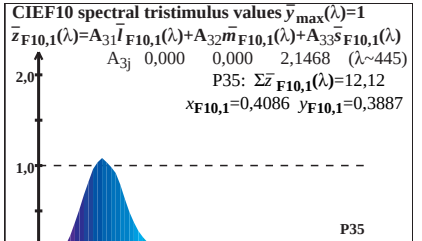
CIEF10 spectral tristimulus values $\bar{y}_{max}(\lambda)=1$

$\bar{z}_{F10,1}(\lambda)=A_{31}\bar{l}_{F10,1}(\lambda)+A_{32}\bar{m}_{F10,1}(\lambda)+A_{33}\bar{s}_{F10,1}(\lambda)$

A_{3j} 0,000 0,000 2,1468 (λ~445)

P35: $\Sigma\bar{z}_{F10,1}(\lambda)=12,12$

$x_{F10,1}=0,4086$ $y_{F10,1}=0,3887$



CEO91−3A_P35

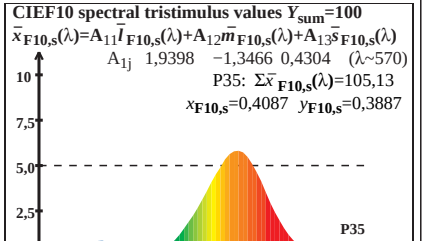
CIEF10 spectral tristimulus values $Y_{sum}=100$

$\bar{x}_{F10,s}(\lambda)=A_{11}\bar{l}_{F10,s}(\lambda)+A_{12}\bar{m}_{F10,s}(\lambda)+A_{13}\bar{s}_{F10,s}(\lambda)$

A_{1j} 1,9398 −1,3466 0,4304 (λ~570)

P35: $\Sigma\bar{x}_{F10,s}(\lambda)=105,13$

$x_{F10,s}=0,4087$ $y_{F10,s}=0,3887$



CEO91−4A_P35

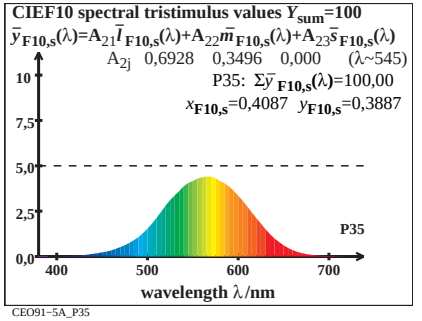
CIEF10 spectral tristimulus values $Y_{sum}=100$

$\bar{y}_{F10,s}(\lambda)=A_{21}\bar{l}_{F10,s}(\lambda)+A_{22}\bar{m}_{F10,s}(\lambda)+A_{23}\bar{s}_{F10,s}(\lambda)$

A_{2j} 0,6928 0,3496 0,000 (λ~545)

P35: $\Sigma\bar{y}_{F10,s}(\lambda)=100,00$

$x_{F10,s}=0,4087$ $y_{F10,s}=0,3887$



CEO91−5A_P35

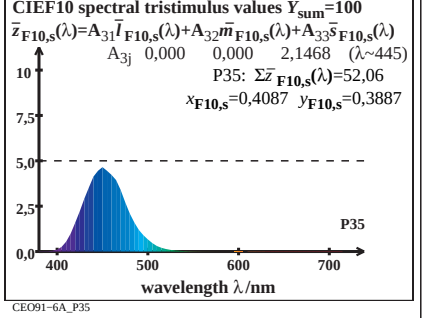
CIEF10 spectral tristimulus values $Y_{sum}=100$

$\bar{z}_{F10,s}(\lambda)=A_{31}\bar{l}_{F10,s}(\lambda)+A_{32}\bar{m}_{F10,s}(\lambda)+A_{33}\bar{s}_{F10,s}(\lambda)$

A_{3j} 0,000 0,000 2,1468 (λ~445)

P35: $\Sigma\bar{z}_{F10,s}(\lambda)=52,06$

$x_{F10,s}=0,4087$ $y_{F10,s}=0,3887$



CEO91−6A_P35

CIEF10 spectral tristimulus values $\bar{y}_{max}(\lambda)=1$

$\bar{y}_{F10,1}(\lambda)=A_{21}\bar{l}_{F10,1}(\lambda)+A_{22}\bar{m}_{F10,1}(\lambda)+A_{23}\bar{s}_{F10,1}(\lambda)$

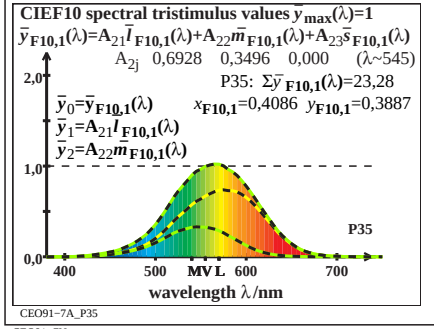
A_{2j} 0,6928 0,3496 0,000 (λ~545)

P35: $\Sigma\bar{y}_{F10,1}(\lambda)=23,28$

$\bar{y}_0=\bar{y}_{F10,1}(\lambda)$ $x_{F10,1}=0,4086$ $y_{F10,1}=0,3887$

$\bar{y}_1=A_{21}\bar{l}_{F10,1}(\lambda)$

$\bar{y}_2=A_{22}\bar{m}_{F10,1}(\lambda)$



CEO91−7A_P35

CIEF10 spectral tristimulus values $\bar{y}_{max}(\lambda)=1$

$\bar{y}_{F10,1}(\lambda)=A_{21}\bar{l}_{F10,1}(\lambda)+A_{22}\bar{m}_{F10,1}(\lambda)+A_{23}\bar{s}_{F10,1}(\lambda)$

A_{2j} 0,6928 0,3496 0,000 (λ~545)

P35: $\Sigma\bar{y}_{F10,1}(\lambda)=23,28$

$\bar{y}_0=\bar{y}_{F10,1}(\lambda)$ $x_{F10,1}=0,4086$ $y_{F10,1}=0,3887$

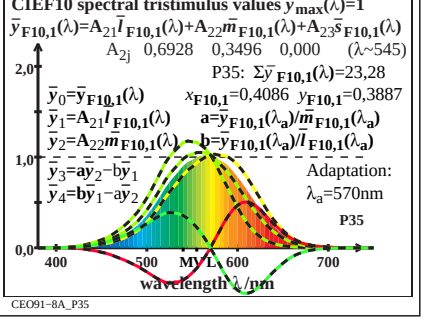
$\bar{y}_1=A_{21}\bar{l}_{F10,1}(\lambda)$ $a=\bar{y}_{F10,1}(\lambda_a)/\bar{m}_{F10,1}(\lambda_a)$

$\bar{y}_2=A_{22}\bar{m}_{F10,1}(\lambda)$ $b=\bar{y}_{F10,1}(\lambda_a)/\bar{l}_{F10,1}(\lambda_a)$

$\bar{y}_3=a\bar{y}_2-b\bar{y}_1$

$\bar{y}_4=b\bar{y}_1-a\bar{y}_2$

Adaptation:
λ_a=570nm



CEO91−8A_P35

CEO91−7N

see similar files: http://farbe.li.tu-berlin.de/CEO9/CEO9.HTM
technical information: http://farbe.li.tu-berlin.de or http://color.li.tu-berlin.de

TUB registration: 20220101-CEO9/CEO9L0NP.PDF /.PS
application for measurement of offset print output

TUB material: code=rha4ta

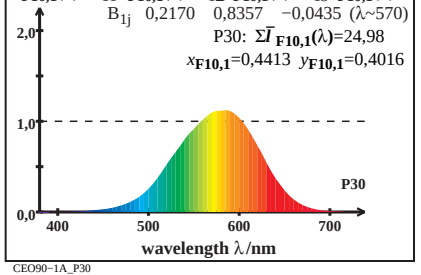
HPE_CIEF10-cone sensitivity $\bar{y}_{max}(\lambda)=1$

$\bar{l}_{F10,1}(\lambda)=B_{11}\bar{x}_{F10,1}(\lambda)+B_{12}\bar{y}_{F10,1}(\lambda)+B_{13}\bar{z}_{F10,1}(\lambda)$

B_{1j} 0,2170 0,8357 −0,0435 (λ~570)

P30: $\Sigma\bar{l}_{F10,1}(\lambda)=24,98$

$x_{F10,1}=0,4413$ $y_{F10,1}=0,4016$



CEO90−1A_P30

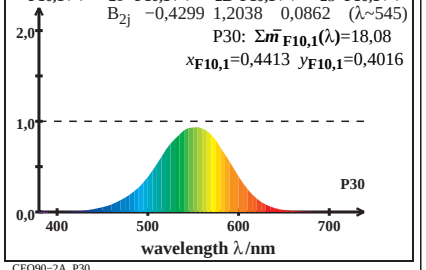
HPE_CIEF10-cone sensitivity $\bar{y}_{max}(\lambda)=1$

$\bar{m}_{F10,1}(\lambda)=B_{21}\bar{x}_{F10,1}(\lambda)+B_{22}\bar{y}_{F10,1}(\lambda)+B_{23}\bar{z}_{F10,1}(\lambda)$

B_{2j} −0,4299 1,2038 0,0862 (λ~545)

P30: $\Sigma\bar{m}_{F10,1}(\lambda)=18,08$

$x_{F10,1}=0,4413$ $y_{F10,1}=0,4016$



CEO90−2A_P30

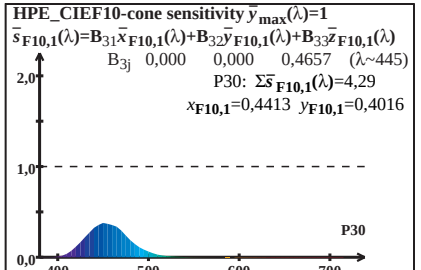
HPE_CIEF10-cone sensitivity $\bar{y}_{max}(\lambda)=1$

$\bar{s}_{F10,1}(\lambda)=B_{31}\bar{x}_{F10,1}(\lambda)+B_{32}\bar{y}_{F10,1}(\lambda)+B_{33}\bar{z}_{F10,1}(\lambda)$

B_{3j} 0,000 0,000 0,4657 (λ~445)

P30: $\Sigma\bar{s}_{F10,1}(\lambda)=4,29$

$x_{F10,1}=0,4413$ $y_{F10,1}=0,4016$



CEO90−3A_P30

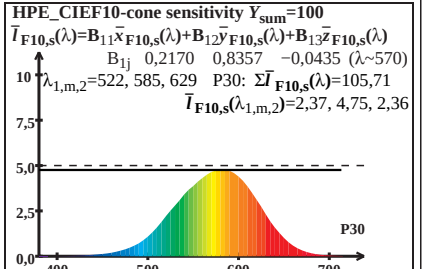
HPE_CIEF10-cone sensitivity $Y_{sum}=100$

$\bar{l}_{F10,s}(\lambda)=B_{11}\bar{x}_{F10,s}(\lambda)+B_{12}\bar{y}_{F10,s}(\lambda)+B_{13}\bar{z}_{F10,s}(\lambda)$

B_{1j} 0,2170 0,8357 −0,0435 (λ~570)

$\lambda_{1,m,2}=522, 585, 629$ P30: $\Sigma\bar{l}_{F10,s}(\lambda)=105,71$

$\bar{l}_{F10,s}(\lambda_{1,m,2})=2,37, 4,75, 2,36$



CEO90−4A_P30

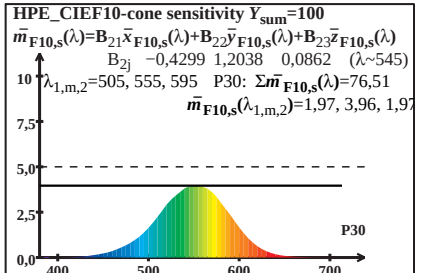
HPE_CIEF10-cone sensitivity $Y_{sum}=100$

$\bar{m}_{F10,s}(\lambda)=B_{21}\bar{x}_{F10,s}(\lambda)+B_{22}\bar{y}_{F10,s}(\lambda)+B_{23}\bar{z}_{F10,s}(\lambda)$

B_{2j} −0,4299 1,2038 0,0862 (λ~545)

$\lambda_{1,m,2}=505, 555, 595$ P30: $\Sigma\bar{m}_{F10,s}(\lambda)=76,51$

$\bar{m}_{F10,s}(\lambda_{1,m,2})=1,97, 3,96, 1,97$



CEO90−5A_P30

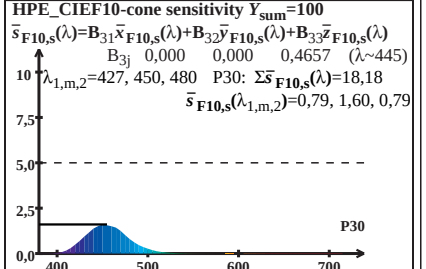
HPE_CIEF10-cone sensitivity $Y_{sum}=100$

$\bar{s}_{F10,s}(\lambda)=B_{31}\bar{x}_{F10,s}(\lambda)+B_{32}\bar{y}_{F10,s}(\lambda)+B_{33}\bar{z}_{F10,s}(\lambda)$

B_{3j} 0,000 0,000 0,4657 (λ~445)

$\lambda_{1,m,2}=427, 450, 480$ P30: $\Sigma\bar{s}_{F10,s}(\lambda)=18,18$

$\bar{s}_{F10,s}(\lambda_{1,m,2})=0,79, 1,60, 0,79$



CEO90−6A_P30

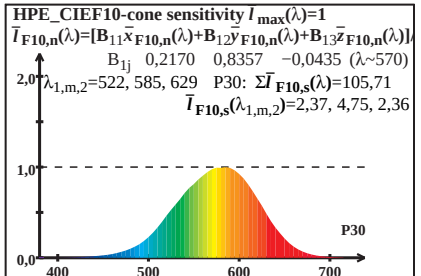
HPE_CIEF10-cone sensitivity $\bar{l}_{max}(\lambda)=1$

$\bar{l}_{F10,n}(\lambda)=[B_{11}\bar{x}_{F10,n}(\lambda)+B_{12}\bar{y}_{F10,n}(\lambda)+B_{13}\bar{z}_{F10,n}(\lambda)]/$

B_{1j} 0,2170 0,8357 −0,0435 (λ~570)

$\lambda_{1,m,2}=522, 585, 629$ P30: $\Sigma\bar{l}_{F10,s}(\lambda)=105,71$

$\bar{l}_{F10,s}(\lambda_{1,m,2})=2,37, 4,75, 2,36$



CEO90−7A_P30

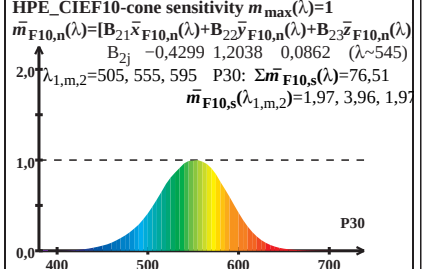
HPE_CIEF10-cone sensitivity $\bar{m}_{max}(\lambda)=1$

$\bar{m}_{F10,n}(\lambda)=[B_{21}\bar{x}_{F10,n}(\lambda)+B_{22}\bar{y}_{F10,n}(\lambda)+B_{23}\bar{z}_{F10,n}(\lambda)]$

B_{2j} −0,4299 1,2038 0,0862 (λ~545)

$\lambda_{1,m,2}=505, 555, 595$ P30: $\Sigma\bar{m}_{F10,s}(\lambda)=76,51$

$\bar{m}_{F10,s}(\lambda_{1,m,2})=1,97, 3,96, 1,97$



CEO90−8A_P30

CEO90−7N

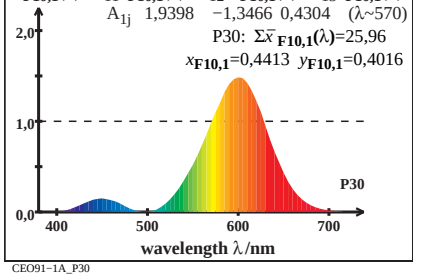
CIEF10 spectral tristimulus values $\bar{y}_{max}(\lambda)=1$

$\bar{x}_{F10,1}(\lambda)=A_{11}\bar{l}_{F10,1}(\lambda)+A_{12}\bar{m}_{F10,1}(\lambda)+A_{13}\bar{s}_{F10,1}(\lambda)$

A_{1j} 1,9398 −1,3466 0,4304 (λ~570)

P30: $\Sigma\bar{x}_{F10,1}(\lambda)=25,96$

$x_{F10,1}=0,4413$ $y_{F10,1}=0,4016$



CEO91−1A_P30

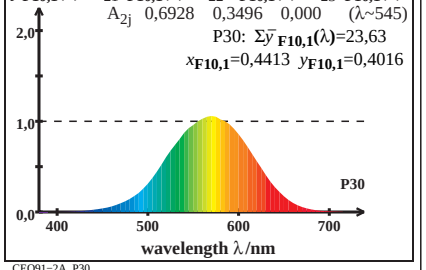
CIEF10 spectral tristimulus values $\bar{y}_{max}(\lambda)=1$

$\bar{y}_{F10,1}(\lambda)=A_{21}\bar{l}_{F10,1}(\lambda)+A_{22}\bar{m}_{F10,1}(\lambda)+A_{23}\bar{s}_{F10,1}(\lambda)$

A_{2j} 0,6928 0,3496 0,000 (λ~545)

P30: $\Sigma\bar{y}_{F10,1}(\lambda)=23,63$

$x_{F10,1}=0,4413$ $y_{F10,1}=0,4016$



CEO91−2A_P30

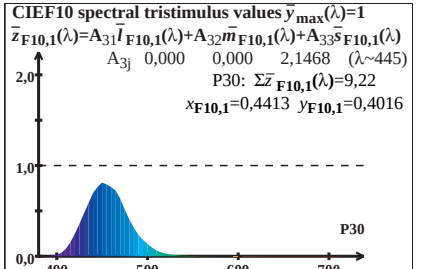
CIEF10 spectral tristimulus values $\bar{y}_{max}(\lambda)=1$

$\bar{z}_{F10,1}(\lambda)=A_{31}\bar{l}_{F10,1}(\lambda)+A_{32}\bar{m}_{F10,1}(\lambda)+A_{33}\bar{s}_{F10,1}(\lambda)$

A_{3j} 0,000 0,000 2,1468 (λ~445)

P30: $\Sigma\bar{z}_{F10,1}(\lambda)=9,22$

$x_{F10,1}=0,4413$ $y_{F10,1}=0,4016$



CEO91−3A_P30

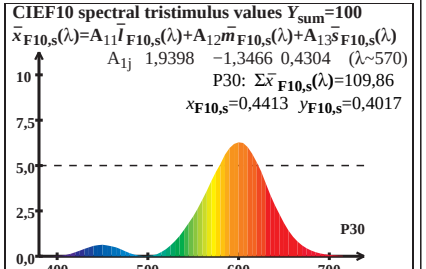
CIEF10 spectral tristimulus values $Y_{sum}=100$

$\bar{x}_{F10,s}(\lambda)=A_{11}\bar{l}_{F10,s}(\lambda)+A_{12}\bar{m}_{F10,s}(\lambda)+A_{13}\bar{s}_{F10,s}(\lambda)$

A_{1j} 1,9398 −1,3466 0,4304 (λ~570)

P30: $\Sigma\bar{x}_{F10,s}(\lambda)=109,86$

$x_{F10,s}=0,4413$ $y_{F10,s}=0,4017$



CEO91−4A_P30

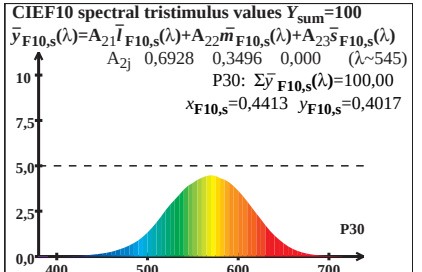
CIEF10 spectral tristimulus values $Y_{sum}=100$

$\bar{y}_{F10,s}(\lambda)=A_{21}\bar{l}_{F10,s}(\lambda)+A_{22}\bar{m}_{F10,s}(\lambda)+A_{23}\bar{s}_{F10,s}(\lambda)$

A_{2j} 0,6928 0,3496 0,000 (λ~545)

P30: $\Sigma\bar{y}_{F10,s}(\lambda)=100,00$

$x_{F10,s}=0,4413$ $y_{F10,s}=0,4017$



CEO91−5A_P30

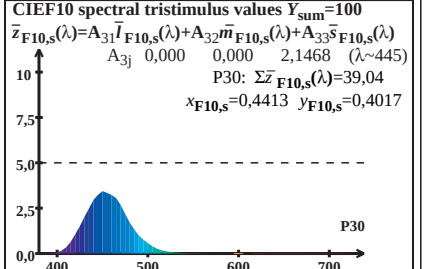
CIEF10 spectral tristimulus values $Y_{sum}=100$

$\bar{z}_{F10,s}(\lambda)=A_{31}\bar{l}_{F10,s}(\lambda)+A_{32}\bar{m}_{F10,s}(\lambda)+A_{33}\bar{s}_{F10,s}(\lambda)$

A_{3j} 0,000 0,000 2,1468 (λ~445)

P30: $\Sigma\bar{z}_{F10,s}(\lambda)=39,04$

$x_{F10,s}=0,4413$ $y_{F10,s}=0,4017$



CEO91−6A_P30

CIEF10 spectral tristimulus values $\bar{y}_{max}(\lambda)=1$

$\bar{y}_{F10,1}(\lambda)=A_{21}\bar{l}_{F10,1}(\lambda)+A_{22}\bar{m}_{F10,1}(\lambda)+A_{23}\bar{s}_{F10,1}(\lambda)$

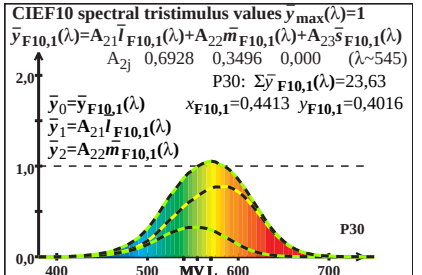
A_{2j} 0,6928 0,3496 0,000 (λ~545)

P30: $\Sigma\bar{y}_{F10,1}(\lambda)=23,63$

$\bar{y}_0=\bar{y}_{F10,1}(\lambda)$ $x_{F10,1}=0,4413$ $y_{F10,1}=0,4016$

$\bar{y}_1=A_{21}\bar{l}_{F10,1}(\lambda)$

$\bar{y}_2=A_{22}\bar{m}_{F10,1}(\lambda)$



CEO91−7A_P30

CIEF10 spectral tristimulus values $\bar{y}_{max}(\lambda)=1$

$\bar{y}_{F10,1}(\lambda)=A_{21}\bar{l}_{F10,1}(\lambda)+A_{22}\bar{m}_{F10,1}(\lambda)+A_{23}\bar{s}_{F10,1}(\lambda)$

A_{2j} 0,6928 0,3496 0,000 (λ~545)

P30: $\Sigma\bar{y}_{F10,1}(\lambda)=23,63$

$\bar{y}_0=\bar{y}_{F10,1}(\lambda)$ $x_{F10,1}=0,4413$ $y_{F10,1}=0,4016$

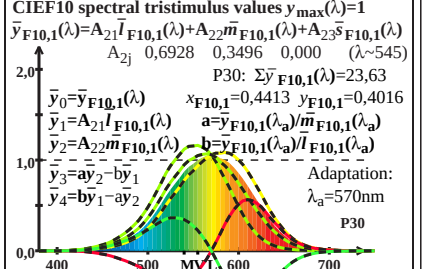
$\bar{y}_1=A_{21}\bar{l}_{F10,1}(\lambda)$ $a=\bar{y}_{F10,1}(\lambda_a)/\bar{m}_{F10,1}(\lambda_a)$

$\bar{y}_2=A_{22}\bar{m}_{F10,1}(\lambda)$ $b=\bar{y}_{F10,1}(\lambda_a)/\bar{l}_{F10,1}(\lambda_a)$

$\bar{y}_3=a\bar{y}_2-b\bar{y}_1$

$\bar{y}_4=b\bar{y}_1-a\bar{y}_2$

Adaptation:
λ_a=570nm



CEO91−8A_P30

CEO91−7N

see similar files: http://farbe.li.tu-berlin.de/CEO9/CEO9.HTM
technical information: http://farbe.li.tu-berlin.de or http://color.li.tu-berlin.de

TUB registration: 20220101-CEO9/CEO9L0NP.PDF /.PS
application for measurement of offset print output

TUB material: code=rha4ta

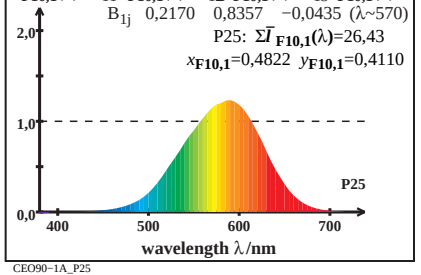
HPE_CIEF10-cone sensitivity $\bar{y}_{max}(\lambda)=1$

$\bar{l}_{F10,1}(\lambda)=B_{11}\bar{x}_{F10,1}(\lambda)+B_{12}\bar{y}_{F10,1}(\lambda)+B_{13}\bar{z}_{F10,1}(\lambda)$

B_{1j} 0,2170 0,8357 −0,0435 (λ~570)

P25: $\Sigma\bar{l}_{F10,1}(\lambda)=26,43$

$x_{F10,1}=0,4822$ $y_{F10,1}=0,4110$



CEO90−1A_P25

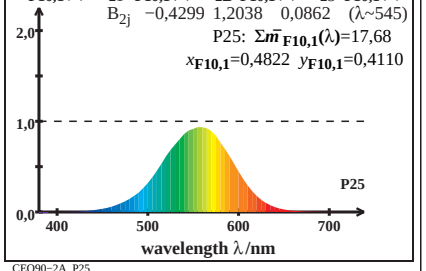
HPE_CIEF10-cone sensitivity $\bar{y}_{max}(\lambda)=1$

$\bar{m}_{F10,1}(\lambda)=B_{21}\bar{x}_{F10,1}(\lambda)+B_{22}\bar{y}_{F10,1}(\lambda)+B_{23}\bar{z}_{F10,1}(\lambda)$

B_{2j} −0,4299 1,2038 0,0862 (λ~545)

P25: $\Sigma\bar{m}_{F10,1}(\lambda)=17,68$

$x_{F10,1}=0,4822$ $y_{F10,1}=0,4110$



CEO90−2A_P25

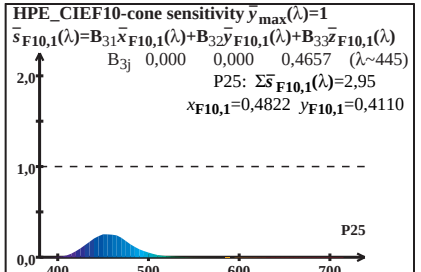
HPE_CIEF10-cone sensitivity $\bar{y}_{max}(\lambda)=1$

$\bar{s}_{F10,1}(\lambda)=B_{31}\bar{x}_{F10,1}(\lambda)+B_{32}\bar{y}_{F10,1}(\lambda)+B_{33}\bar{z}_{F10,1}(\lambda)$

B_{3j} 0,000 0,000 0,4657 (λ~445)

P25: $\Sigma\bar{s}_{F10,1}(\lambda)=2,95$

$x_{F10,1}=0,4822$ $y_{F10,1}=0,4110$



CEO90−3A_P25

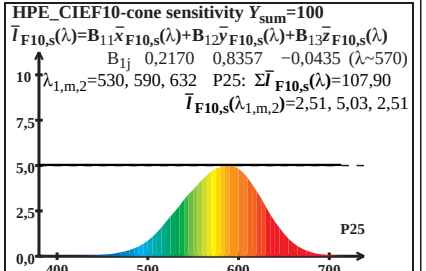
HPE_CIEF10-cone sensitivity $Y_{sum}=100$

$\bar{l}_{F10,s}(\lambda)=B_{11}\bar{x}_{F10,s}(\lambda)+B_{12}\bar{y}_{F10,s}(\lambda)+B_{13}\bar{z}_{F10,s}(\lambda)$

B_{1j} 0,2170 0,8357 −0,0435 (λ~570)

$\lambda_{1,m,2}$=530, 590, 632 P25: $\Sigma\bar{l}_{F10,s}(\lambda)=107,90$

$\bar{l}_{F10,s}(\lambda_{1,m,2})$=2,51, 5,03, 2,51



CEO90−4A_P25

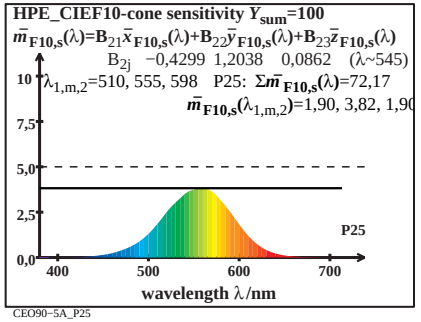
HPE_CIEF10-cone sensitivity $Y_{sum}=100$

$\bar{m}_{F10,s}(\lambda)=B_{21}\bar{x}_{F10,s}(\lambda)+B_{22}\bar{y}_{F10,s}(\lambda)+B_{23}\bar{z}_{F10,s}(\lambda)$

B_{2j} −0,4299 1,2038 0,0862 (λ~545)

$\lambda_{1,m,2}$=510, 555, 598 P25: $\Sigma\bar{m}_{F10,s}(\lambda)=72,17$

$\bar{m}_{F10,s}(\lambda_{1,m,2})$=1,90, 3,82, 1,90



CEO90−5A_P25

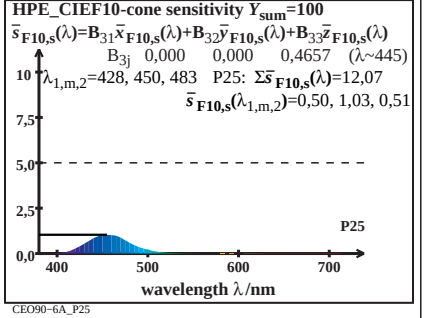
HPE_CIEF10-cone sensitivity $Y_{sum}=100$

$\bar{s}_{F10,s}(\lambda)=B_{31}\bar{x}_{F10,s}(\lambda)+B_{32}\bar{y}_{F10,s}(\lambda)+B_{33}\bar{z}_{F10,s}(\lambda)$

B_{3j} 0,000 0,000 0,4657 (λ~445)

$\lambda_{1,m,2}$=428, 450, 483 P25: $\Sigma\bar{s}_{F10,s}(\lambda)=12,07$

$\bar{s}_{F10,s}(\lambda_{1,m,2})$=0,50, 1,03, 0,51



CEO90−6A_P25

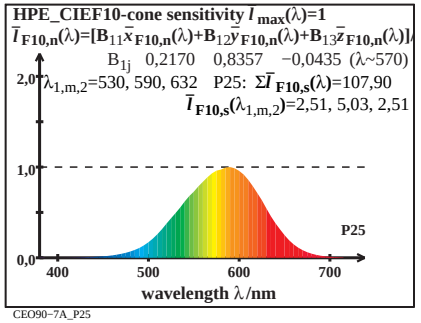
HPE_CIEF10-cone sensitivity $\bar{l}_{max}(\lambda)=1$

$\bar{l}_{F10,n}(\lambda)=[B_{11}\bar{x}_{F10,n}(\lambda)+B_{12}\bar{y}_{F10,n}(\lambda)+B_{13}\bar{z}_{F10,n}(\lambda)]/$

B_{1j} 0,2170 0,8357 −0,0435 (λ~570)

$\lambda_{1,m,2}$=530, 590, 632 P25: $\Sigma\bar{l}_{F10,s}(\lambda)=107,90$

$\bar{l}_{F10,s}(\lambda_{1,m,2})$=2,51, 5,03, 2,51



CEO90−7A_P25

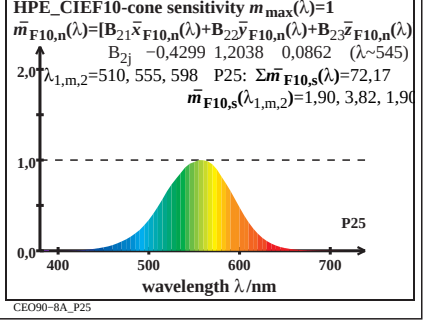
HPE_CIEF10-cone sensitivity $\bar{m}_{max}(\lambda)=1$

$\bar{m}_{F10,n}(\lambda)=[B_{21}\bar{x}_{F10,n}(\lambda)+B_{22}\bar{y}_{F10,n}(\lambda)+B_{23}\bar{z}_{F10,n}(\lambda)]$

B_{2j} −0,4299 1,2038 0,0862 (λ~545)

$\lambda_{1,m,2}$=510, 555, 598 P25: $\Sigma\bar{m}_{F10,s}(\lambda)=72,17$

$\bar{m}_{F10,s}(\lambda_{1,m,2})$=1,90, 3,82, 1,90



CEO90−8A_P25

CEO90−7N

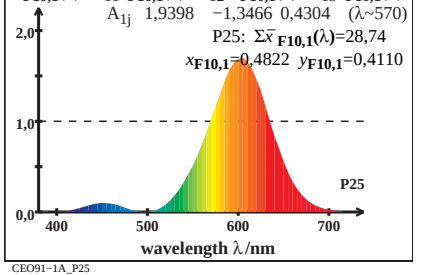
CIEF10 spectral tristimulus values $\bar{y}_{max}(\lambda)=1$

$\bar{x}_{F10,1}(\lambda)=A_{11}\bar{l}_{F10,1}(\lambda)+A_{12}\bar{m}_{F10,1}(\lambda)+A_{13}\bar{s}_{F10,1}(\lambda)$

A_{1j} 1,9398 −1,3466 0,4304 (λ~570)

P25: $\Sigma\bar{x}_{F10,1}(\lambda)=28,74$

$x_{F10,1}=0,4822$ $y_{F10,1}=0,4110$



CEO91−1A_P25

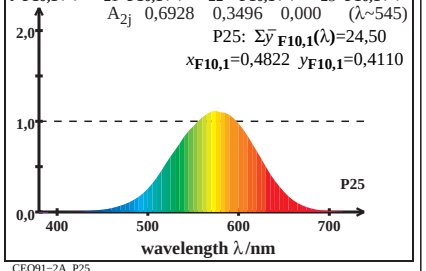
CIEF10 spectral tristimulus values $\bar{y}_{max}(\lambda)=1$

$\bar{y}_{F10,1}(\lambda)=A_{21}\bar{l}_{F10,1}(\lambda)+A_{22}\bar{m}_{F10,1}(\lambda)+A_{23}\bar{s}_{F10,1}(\lambda)$

A_{2j} 0,6928 0,3496 0,000 (λ~545)

P25: $\Sigma\bar{y}_{F10,1}(\lambda)=24,50$

$x_{F10,1}=0,4822$ $y_{F10,1}=0,4110$



CEO91−2A_P25

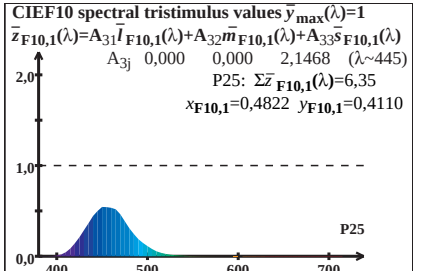
CIEF10 spectral tristimulus values $\bar{y}_{max}(\lambda)=1$

$\bar{z}_{F10,1}(\lambda)=A_{31}\bar{l}_{F10,1}(\lambda)+A_{32}\bar{m}_{F10,1}(\lambda)+A_{33}\bar{s}_{F10,1}(\lambda)$

A_{3j} 0,000 0,000 2,1468 (λ~445)

P25: $\Sigma\bar{z}_{F10,1}(\lambda)=6,35$

$x_{F10,1}=0,4822$ $y_{F10,1}=0,4110$



CEO91−3A_P25

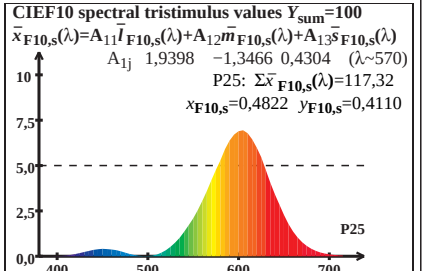
CIEF10 spectral tristimulus values $Y_{sum}=100$

$\bar{x}_{F10,s}(\lambda)=A_{11}\bar{l}_{F10,s}(\lambda)+A_{12}\bar{m}_{F10,s}(\lambda)+A_{13}\bar{s}_{F10,s}(\lambda)$

A_{1j} 1,9398 −1,3466 0,4304 (λ~570)

P25: $\Sigma\bar{x}_{F10,s}(\lambda)=117,32$

$x_{F10,s}=0,4822$ $y_{F10,s}=0,4110$



CEO91−4A_P25

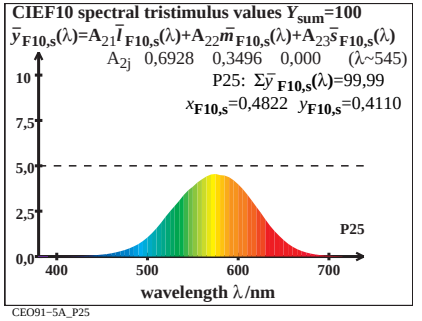
CIEF10 spectral tristimulus values $Y_{sum}=100$

$\bar{y}_{F10,s}(\lambda)=A_{21}\bar{l}_{F10,s}(\lambda)+A_{22}\bar{m}_{F10,s}(\lambda)+A_{23}\bar{s}_{F10,s}(\lambda)$

A_{2j} 0,6928 0,3496 0,000 (λ~545)

P25: $\Sigma\bar{y}_{F10,s}(\lambda)=99,99$

$x_{F10,s}=0,4822$ $y_{F10,s}=0,4110$



CEO91−5A_P25

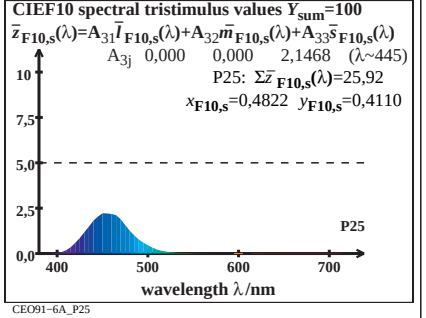
CIEF10 spectral tristimulus values $Y_{sum}=100$

$\bar{z}_{F10,s}(\lambda)=A_{31}\bar{l}_{F10,s}(\lambda)+A_{32}\bar{m}_{F10,s}(\lambda)+A_{33}\bar{s}_{F10,s}(\lambda)$

A_{3j} 0,000 0,000 2,1468 (λ~445)

P25: $\Sigma\bar{z}_{F10,s}(\lambda)=25,92$

$x_{F10,s}=0,4822$ $y_{F10,s}=0,4110$



CEO91−6A_P25

CIEF10 spectral tristimulus values $\bar{y}_{max}(\lambda)=1$

$\bar{y}_{F10,1}(\lambda)=A_{21}\bar{l}_{F10,1}(\lambda)+A_{22}\bar{m}_{F10,1}(\lambda)+A_{23}\bar{s}_{F10,1}(\lambda)$

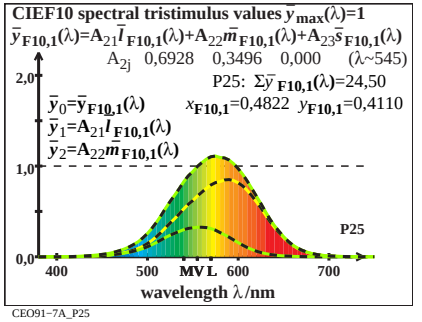
A_{2j} 0,6928 0,3496 0,000 (λ~545)

P25: $\Sigma\bar{y}_{F10,1}(\lambda)=24,50$

$\bar{y}_0=\bar{y}_{F10,1}(\lambda)$ $x_{F10,1}=0,4822$ $y_{F10,1}=0,4110$

$\bar{y}_1=A_{21}\bar{l}_{F10,1}(\lambda)$

$\bar{y}_2=A_{22}\bar{m}_{F10,1}(\lambda)$



CEO91−7A_P25

CIEF10 spectral tristimulus values $\bar{y}_{max}(\lambda)=1$

$\bar{y}_{F10,1}(\lambda)=A_{21}\bar{l}_{F10,1}(\lambda)+A_{22}\bar{m}_{F10,1}(\lambda)+A_{23}\bar{s}_{F10,1}(\lambda)$

A_{2j} 0,6928 0,3496 0,000 (λ~545)

P25: $\Sigma\bar{y}_{F10,1}(\lambda)=24,50$

$\bar{y}_0=\bar{y}_{F10,1}(\lambda)$ $x_{F10,1}=0,4822$ $y_{F10,1}=0,4110$

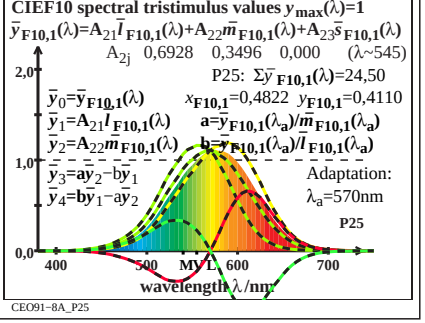
$\bar{y}_1=A_{21}\bar{l}_{F10,1}(\lambda)$ $a=\bar{y}_{F10,1}(\lambda_a)/\bar{m}_{F10,1}(\lambda_a)$

$\bar{y}_2=A_{22}\bar{m}_{F10,1}(\lambda)$ $b=\bar{y}_{F10,1}(\lambda_a)/\bar{l}_{F10,1}(\lambda_a)$

$\bar{y}_3=a\bar{y}_2-b\bar{y}_1$

$\bar{y}_4=b\bar{y}_1-a\bar{y}_2$

Adaptation:
λ_a=570nm



CEO91−8A_P25