see similar files: http://farbe.li.tu-berlin.de/CEO7/CEO7.HTM
technical information: http://farbe.li.tu-berlin.de or http://color.li.tu-berlin.de

TUB registration: 20220101-CEO7/CEO7L0NP.PDF /.PS
application for measurement of offset print output

TUB material: code=rha4ta

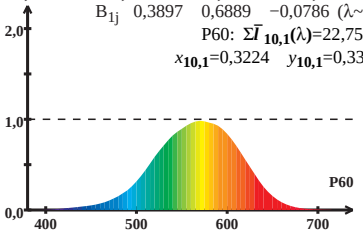
HPE_CIE10-cone sensitivity $\bar{y}_{max}(\lambda)=1$

$\bar{l}_{10,1}(\lambda)=B_{11}\bar{x}_{10,1}(\lambda)+B_{12}\bar{y}_{10,1}(\lambda)+B_{13}\bar{z}_{10,1}(\lambda)$

B_{1j} 0,3897 0,6889 −0,0786 (λ~570)

P60: $\Sigma\bar{l}_{10,1}(\lambda)=22,75$

$x_{10,1}=0,3224$ $y_{10,1}=0,3320$



CEO70−1A_P60

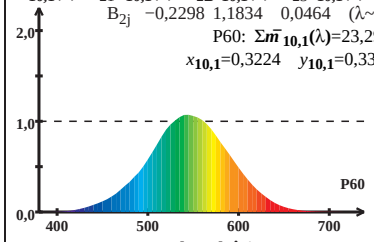
HPE_CIE10-cone sensitivity $\bar{y}_{max}(\lambda)=1$

$\bar{m}_{10,1}(\lambda)=B_{21}\bar{x}_{10,1}(\lambda)+B_{22}\bar{y}_{10,1}(\lambda)+B_{23}\bar{z}_{10,1}(\lambda)$

B_{2j} −0,2298 1,1834 0,0464 (λ~545)

P60: $\Sigma\bar{m}_{10,1}(\lambda)=23,29$

$x_{10,1}=0,3224$ $y_{10,1}=0,3320$



CEO70−2A_P60

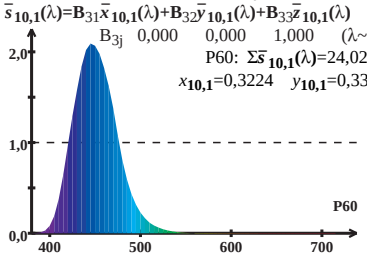
HPE_CIE10-cone sensitivity $\bar{y}_{max}(\lambda)=1$

$\bar{s}_{10,1}(\lambda)=B_{31}\bar{x}_{10,1}(\lambda)+B_{32}\bar{y}_{10,1}(\lambda)+B_{33}\bar{z}_{10,1}(\lambda)$

B_{3j} 0,000 0,000 1,000 (λ~445)

P60: $\Sigma\bar{s}_{10,1}(\lambda)=24,02$

$x_{10,1}=0,3224$ $y_{10,1}=0,3320$



CEO70−3A_P60

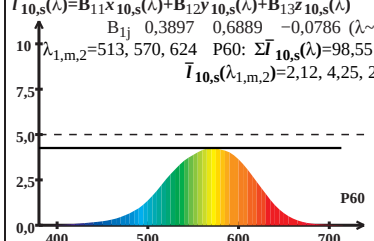
HPE_CIE10-cone sensitivity $Y_{sum}=100$

$\bar{l}_{10,s}(\lambda)=B_{11}\bar{x}_{10,s}(\lambda)+B_{12}\bar{y}_{10,s}(\lambda)+B_{13}\bar{z}_{10,s}(\lambda)$

B_{1j} 0,3897 0,6889 −0,0786 (λ~570)

$\lambda_{1,m,2}$=513, 570, 624 P60: $\Sigma\bar{l}_{10,s}(\lambda)=98,55$

$\bar{l}_{10,s}(\lambda_{1,m,2})$=2,12, 4,25, 2,12



CEO70−4A_P60

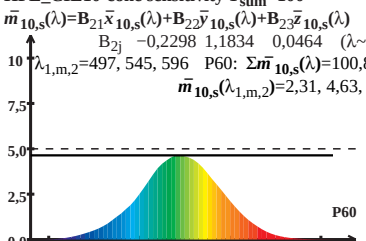
HPE_CIE10-cone sensitivity $Y_{sum}=100$

$\bar{m}_{10,s}(\lambda)=B_{21}\bar{x}_{10,s}(\lambda)+B_{22}\bar{y}_{10,s}(\lambda)+B_{23}\bar{z}_{10,s}(\lambda)$

B_{2j} −0,2298 1,1834 0,0464 (λ~545)

$\lambda_{1,m,2}$=497, 545, 596 P60: $\Sigma\bar{m}_{10,s}(\lambda)=100,85$

$\bar{m}_{10,s}(\lambda_{1,m,2})$=2,31, 4,63, 2,31



CEO70−5A_P60

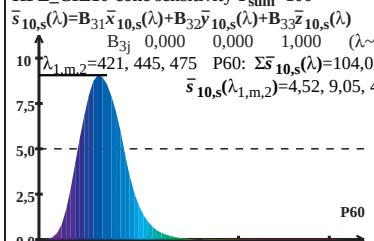
HPE_CIE10-cone sensitivity $Y_{sum}=100$

$\bar{s}_{10,s}(\lambda)=B_{31}\bar{x}_{10,s}(\lambda)+B_{32}\bar{y}_{10,s}(\lambda)+B_{33}\bar{z}_{10,s}(\lambda)$

B_{3j} 0,000 0,000 1,000 (λ~445)

$\lambda_{1,m,2}$=421, 445, 475 P60: $\Sigma\bar{s}_{10,s}(\lambda)=104,01$

$\bar{s}_{10,s}(\lambda_{1,m,2})$=4,52, 9,05, 4,52



CEO70−6A_P60

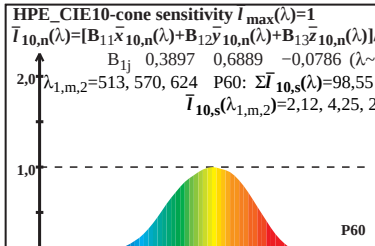
HPE_CIE10-cone sensitivity $l_{max}(\lambda)=1$

$\bar{l}_{10,n}(\lambda)=[B_{11}\bar{x}_{10,n}(\lambda)+B_{12}\bar{y}_{10,n}(\lambda)+B_{13}\bar{z}_{10,n}(\lambda)]/4,25$

B_{1j} 0,3897 0,6889 −0,0786 (λ~570)

$\lambda_{1,m,2}$=513, 570, 624 P60: $\Sigma\bar{l}_{10,s}(\lambda)=98,55$

$\bar{l}_{10,s}(\lambda_{1,m,2})$=2,12, 4,25, 2,12



CEO70−7A_P60

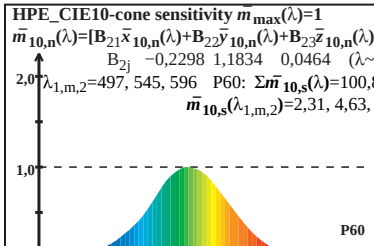
HPE_CIE10-cone sensitivity $\bar{m}_{max}(\lambda)=1$

$\bar{m}_{10,n}(\lambda)=[B_{21}\bar{x}_{10,n}(\lambda)+B_{22}\bar{y}_{10,n}(\lambda)+B_{23}\bar{z}_{10,n}(\lambda)]/4,6$

B_{2j} −0,2298 1,1834 0,0464 (λ~545)

$\lambda_{1,m,2}$=497, 545, 596 P60: $\Sigma\bar{m}_{10,s}(\lambda)=100,85$

$\bar{m}_{10,s}(\lambda_{1,m,2})$=2,31, 4,63, 2,31



CEO70−8A_P60

CEO70−7N

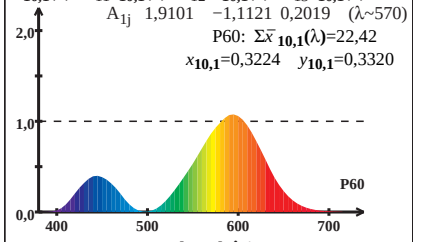
CIE10 spectral tristimulus values $\bar{y}_{max}(\lambda)=1$

$\bar{x}_{10,1}(\lambda)=A_{11}\bar{l}_{10,1}(\lambda)+A_{12}\bar{m}_{10,1}(\lambda)+A_{13}\bar{s}_{10,1}(\lambda)$

A_{1j} 1,9101 −1,1121 0,2019 (λ~570)

P60: $\Sigma\bar{x}_{10,1}(\lambda)=22,42$

$x_{10,1}=0,3224$ $y_{10,1}=0,3320$



CEO71−1A_P60

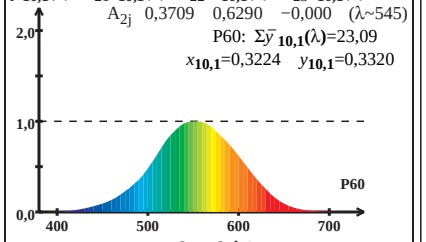
CIE10 spectral tristimulus values $\bar{y}_{max}(\lambda)=1$

$\bar{y}_{10,1}(\lambda)=A_{21}\bar{l}_{10,1}(\lambda)+A_{22}\bar{m}_{10,1}(\lambda)+A_{23}\bar{s}_{10,1}(\lambda)$

A_{2j} 0,3709 0,6290 −0,000 (λ~545)

P60: $\Sigma\bar{y}_{10,1}(\lambda)=23,09$

$x_{10,1}=0,3224$ $y_{10,1}=0,3320$



CEO71−2A_P60

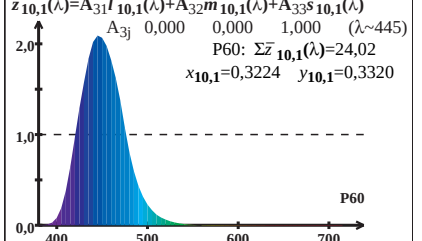
CIE10 spectral tristimulus values $\bar{y}_{max}(\lambda)=1$

$\bar{z}_{10,1}(\lambda)=A_{31}\bar{l}_{10,1}(\lambda)+A_{32}\bar{m}_{10,1}(\lambda)+A_{33}\bar{s}_{10,1}(\lambda)$

A_{3j} 0,000 0,000 1,000 (λ~445)

P60: $\Sigma\bar{z}_{10,1}(\lambda)=24,02$

$x_{10,1}=0,3224$ $y_{10,1}=0,3320$



CEO71−3A_P60

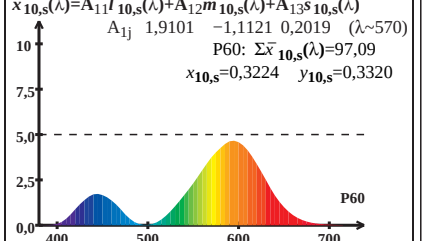
CIE10 spectral tristimulus values $Y_{sum}=100$

$\bar{x}_{10,s}(\lambda)=A_{11}\bar{l}_{10,s}(\lambda)+A_{12}\bar{m}_{10,s}(\lambda)+A_{13}\bar{s}_{10,s}(\lambda)$

A_{1j} 1,9101 −1,1121 0,2019 (λ~570)

P60: $\Sigma\bar{x}_{10,s}(\lambda)=97,09$

$x_{10,s}=0,3224$ $y_{10,s}=0,3320$



CEO71−4A_P60

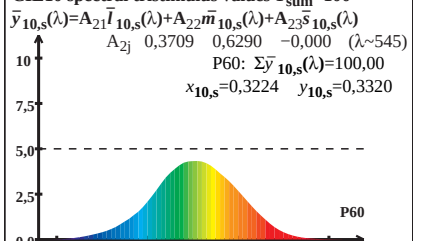
CIE10 spectral tristimulus values $Y_{sum}=100$

$\bar{y}_{10,s}(\lambda)=A_{21}\bar{l}_{10,s}(\lambda)+A_{22}\bar{m}_{10,s}(\lambda)+A_{23}\bar{s}_{10,s}(\lambda)$

A_{2j} 0,3709 0,6290 −0,000 (λ~545)

P60: $\Sigma\bar{y}_{10,s}(\lambda)=100,00$

$x_{10,s}=0,3224$ $y_{10,s}=0,3320$



CEO71−5A_P60

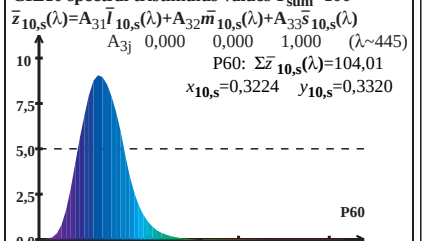
CIE10 spectral tristimulus values $Y_{sum}=100$

$\bar{z}_{10,s}(\lambda)=A_{31}\bar{l}_{10,s}(\lambda)+A_{32}\bar{m}_{10,s}(\lambda)+A_{33}\bar{s}_{10,s}(\lambda)$

A_{3j} 0,000 0,000 1,000 (λ~445)

P60: $\Sigma\bar{z}_{10,s}(\lambda)=104,01$

$x_{10,s}=0,3224$ $y_{10,s}=0,3320$



CEO71−6A_P60

CIE10 spectral tristimulus values $\bar{y}_{max}(\lambda)=1$

$\bar{y}_{10,1}(\lambda)=A_{21}\bar{l}_{10,1}(\lambda)+A_{22}\bar{m}_{10,1}(\lambda)+A_{23}\bar{s}_{10,1}(\lambda)$

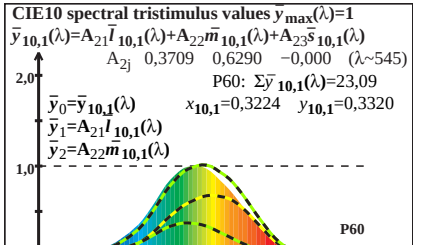
A_{2j} 0,3709 0,6290 −0,000 (λ~545)

P60: $\Sigma\bar{y}_{10,1}(\lambda)=23,09$

$\bar{y}_0=\bar{y}_{10,1}(\lambda)$ $x_{10,1}=0,3224$ $y_{10,1}=0,3320$

$\bar{y}_1=A_{21}\bar{l}_{10,1}(\lambda)$

$\bar{y}_2=A_{22}\bar{m}_{10,1}(\lambda)$



CEO71−7A_P60

CIE10 spectral tristimulus values $\bar{y}_{max}(\lambda)=1$

$\bar{y}_{10,1}(\lambda)=A_{21}\bar{l}_{10,1}(\lambda)+A_{22}\bar{m}_{10,1}(\lambda)+A_{23}\bar{s}_{10,1}(\lambda)$

A_{2j} 0,3709 0,6290 −0,000 (λ~545)

P60: $\Sigma\bar{y}_{10,1}(\lambda)=23,09$

$\bar{y}_0=\bar{y}_{10,1}(\lambda)$ $x_{10,1}=0,3224$ $y_{10,1}=0,3320$

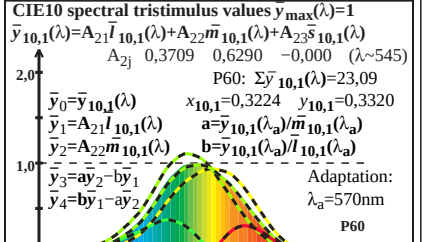
$\bar{y}_1=A_{21}\bar{l}_{10,1}(\lambda)$ $a=\bar{y}_{10,1}(\lambda_a)/\bar{m}_{10,1}(\lambda_a)$

$\bar{y}_2=A_{22}\bar{m}_{10,1}(\lambda)$ $b=\bar{y}_{10,1}(\lambda_a)/\bar{l}_{10,1}(\lambda_a)$

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

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

Adaptation:
λ_a=570nm



CEO71−8A_P60

CEO71−7N

see similar files: http://farbe.li.tu-berlin.de/CEO7/CEO7.HTM
technical information: http://farbe.li.tu-berlin.de or http://color.li.tu-berlin.de

TUB registration: 20220101-CEO7/CEO7L0NP.PDF /.PS
application for measurement of offset print output

TUB material: code=rha4ta

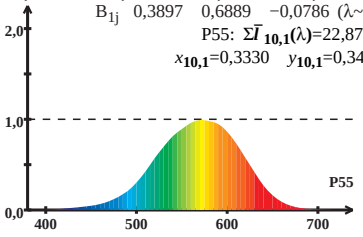
HPE_CIE10-cone sensitivity $\bar{y}_{max}(\lambda)=1$

$\bar{l}_{10,1}(\lambda)=B_{11}\bar{x}_{10,1}(\lambda)+B_{12}\bar{y}_{10,1}(\lambda)+B_{13}\bar{z}_{10,1}(\lambda)$

B_{1j} 0,3897 0,6889 −0,0786 (λ~570)

P55: $\Sigma\bar{l}_{10,1}(\lambda)=22,87$

$x_{10,1}=0,3330$ $y_{10,1}=0,3410$



CEO70−1A_P55

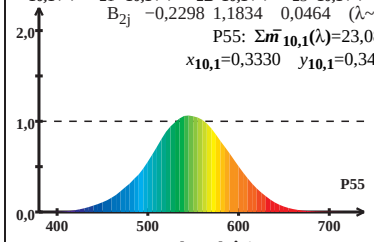
HPE_CIE10-cone sensitivity $\bar{y}_{max}(\lambda)=1$

$\bar{m}_{10,1}(\lambda)=B_{21}\bar{x}_{10,1}(\lambda)+B_{22}\bar{y}_{10,1}(\lambda)+B_{23}\bar{z}_{10,1}(\lambda)$

B_{2j} −0,2298 1,1834 0,0464 (λ~545)

P55: $\Sigma\bar{m}_{10,1}(\lambda)=23,08$

$x_{10,1}=0,3330$ $y_{10,1}=0,3410$



CEO70−2A_P55

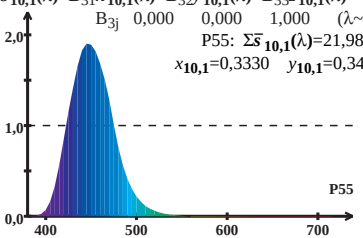
HPE_CIE10-cone sensitivity $\bar{y}_{max}(\lambda)=1$

$\bar{s}_{10,1}(\lambda)=B_{31}\bar{x}_{10,1}(\lambda)+B_{32}\bar{y}_{10,1}(\lambda)+B_{33}\bar{z}_{10,1}(\lambda)$

B_{3j} 0,000 0,000 1,000 (λ~445)

P55: $\Sigma\bar{s}_{10,1}(\lambda)=21,98$

$x_{10,1}=0,3330$ $y_{10,1}=0,3410$



CEO70−3A_P55

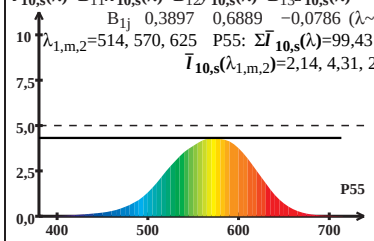
HPE_CIE10-cone sensitivity $Y_{sum}=100$

$\bar{l}_{10,s}(\lambda)=B_{11}\bar{x}_{10,s}(\lambda)+B_{12}\bar{y}_{10,s}(\lambda)+B_{13}\bar{z}_{10,s}(\lambda)$

B_{1j} 0,3897 0,6889 −0,0786 (λ~570)

$\lambda_{1,m,2}$=514, 570, 625 P55: $\Sigma\bar{l}_{10,s}(\lambda)=99,43$

$\bar{l}_{10,s}(\lambda_{1,m,2})$=2,14, 4,31, 2,15



CEO70−4A_P55

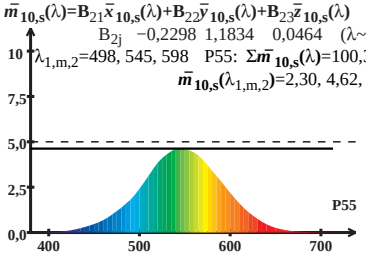
HPE_CIE10-cone sensitivity $Y_{sum}=100$

$\bar{m}_{10,s}(\lambda)=B_{21}\bar{x}_{10,s}(\lambda)+B_{22}\bar{y}_{10,s}(\lambda)+B_{23}\bar{z}_{10,s}(\lambda)$

B_{2j} −0,2298 1,1834 0,0464 (λ~545)

$\lambda_{1,m,2}$=498, 545, 598 P55: $\Sigma\bar{m}_{10,s}(\lambda)=100,33$

$\bar{m}_{10,s}(\lambda_{1,m,2})$=2,30, 4,62, 2,30



CEO70−5A_P55

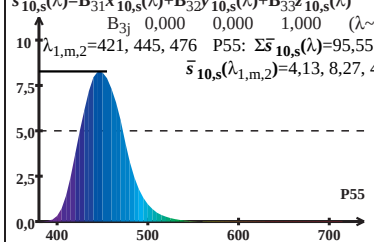
HPE_CIE10-cone sensitivity $Y_{sum}=100$

$\bar{s}_{10,s}(\lambda)=B_{31}\bar{x}_{10,s}(\lambda)+B_{32}\bar{y}_{10,s}(\lambda)+B_{33}\bar{z}_{10,s}(\lambda)$

B_{3j} 0,000 0,000 1,000 (λ~445)

$\lambda_{1,m,2}$=421, 445, 476 P55: $\Sigma\bar{s}_{10,s}(\lambda)=95,55$

$\bar{s}_{10,s}(\lambda_{1,m,2})$=4,13, 8,27, 4,13



CEO70−6A_P55

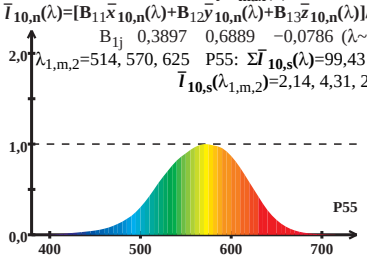
HPE_CIE10-cone sensitivity $l_{max}(\lambda)=1$

$\bar{l}_{10,n}(\lambda)=[B_{11}\bar{x}_{10,n}(\lambda)+B_{12}\bar{y}_{10,n}(\lambda)+B_{13}\bar{z}_{10,n}(\lambda)]/4,31$

B_{1j} 0,3897 0,6889 −0,0786 (λ~570)

$\lambda_{1,m,2}$=514, 570, 625 P55: $\Sigma\bar{l}_{10,s}(\lambda)=99,43$

$\bar{l}_{10,s}(\lambda_{1,m,2})$=2,14, 4,31, 2,15



CEO70−7A_P55

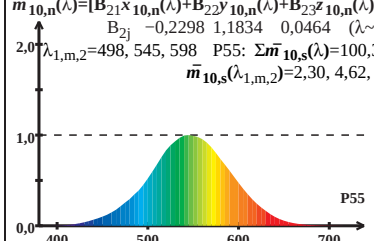
HPE_CIE10-cone sensitivity $\bar{m}_{max}(\lambda)=1$

$\bar{m}_{10,n}(\lambda)=[B_{21}\bar{x}_{10,n}(\lambda)+B_{22}\bar{y}_{10,n}(\lambda)+B_{23}\bar{z}_{10,n}(\lambda)]/4,6$

B_{2j} −0,2298 1,1834 0,0464 (λ~545)

$\lambda_{1,m,2}$=498, 545, 598 P55: $\Sigma\bar{m}_{10,s}(\lambda)=100,33$

$\bar{m}_{10,s}(\lambda_{1,m,2})$=2,30, 4,62, 2,30



CEO70−8A_P55

CEO70−7N

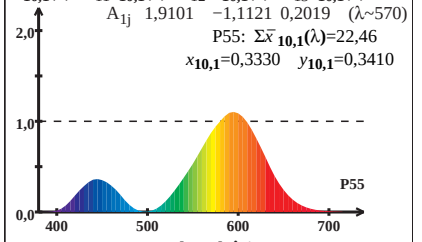
CIE10 spectral tristimulus values $\bar{y}_{max}(\lambda)=1$

$\bar{x}_{10,1}(\lambda)=A_{11}\bar{l}_{10,1}(\lambda)+A_{12}\bar{m}_{10,1}(\lambda)+A_{13}\bar{s}_{10,1}(\lambda)$

A_{1j} 1,9101 −1,1121 0,2019 (λ~570)

P55: $\Sigma\bar{x}_{10,1}(\lambda)=22,46$

$x_{10,1}=0,3330$ $y_{10,1}=0,3410$



CEO71−1A_P55

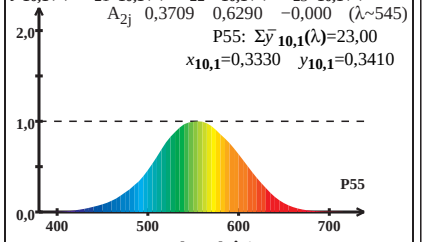
CIE10 spectral tristimulus values $\bar{y}_{max}(\lambda)=1$

$\bar{y}_{10,1}(\lambda)=A_{21}\bar{l}_{10,1}(\lambda)+A_{22}\bar{m}_{10,1}(\lambda)+A_{23}\bar{s}_{10,1}(\lambda)$

A_{2j} 0,3709 0,6290 −0,000 (λ~545)

P55: $\Sigma\bar{y}_{10,1}(\lambda)=23,00$

$x_{10,1}=0,3330$ $y_{10,1}=0,3410$



CEO71−2A_P55

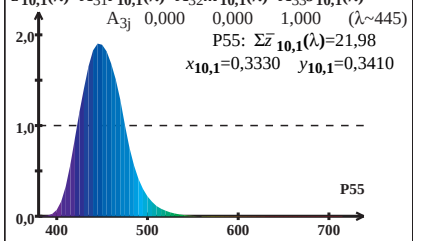
CIE10 spectral tristimulus values $\bar{y}_{max}(\lambda)=1$

$\bar{z}_{10,1}(\lambda)=A_{31}\bar{l}_{10,1}(\lambda)+A_{32}\bar{m}_{10,1}(\lambda)+A_{33}\bar{s}_{10,1}(\lambda)$

A_{3j} 0,000 0,000 1,000 (λ~445)

P55: $\Sigma\bar{z}_{10,1}(\lambda)=21,98$

$x_{10,1}=0,3330$ $y_{10,1}=0,3410$



CEO71−3A_P55

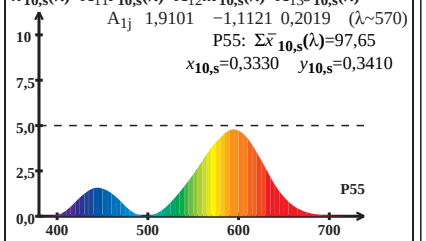
CIE10 spectral tristimulus values $Y_{sum}=100$

$\bar{x}_{10,s}(\lambda)=A_{11}\bar{l}_{10,s}(\lambda)+A_{12}\bar{m}_{10,s}(\lambda)+A_{13}\bar{s}_{10,s}(\lambda)$

A_{1j} 1,9101 −1,1121 0,2019 (λ~570)

P55: $\Sigma\bar{x}_{10,s}(\lambda)=97,65$

$x_{10,s}=0,3330$ $y_{10,s}=0,3410$



CEO71−4A_P55

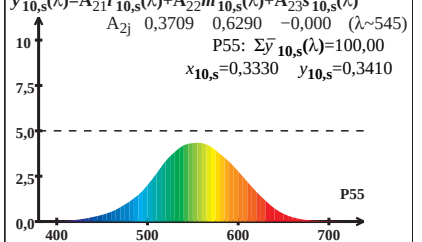
CIE10 spectral tristimulus values $Y_{sum}=100$

$\bar{y}_{10,s}(\lambda)=A_{21}\bar{l}_{10,s}(\lambda)+A_{22}\bar{m}_{10,s}(\lambda)+A_{23}\bar{s}_{10,s}(\lambda)$

A_{2j} 0,3709 0,6290 −0,000 (λ~545)

P55: $\Sigma\bar{y}_{10,s}(\lambda)=100,00$

$x_{10,s}=0,3330$ $y_{10,s}=0,3410$



CEO71−5A_P55

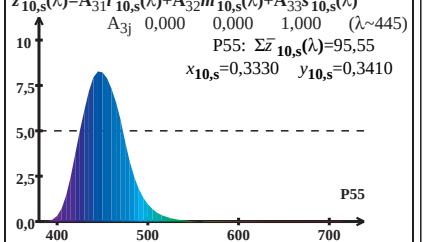
CIE10 spectral tristimulus values $Y_{sum}=100$

$\bar{z}_{10,s}(\lambda)=A_{31}\bar{l}_{10,s}(\lambda)+A_{32}\bar{m}_{10,s}(\lambda)+A_{33}\bar{s}_{10,s}(\lambda)$

A_{3j} 0,000 0,000 1,000 (λ~445)

P55: $\Sigma\bar{z}_{10,s}(\lambda)=95,55$

$x_{10,s}=0,3330$ $y_{10,s}=0,3410$



CEO71−6A_P55

CIE10 spectral tristimulus values $\bar{y}_{max}(\lambda)=1$

$\bar{y}_{10,1}(\lambda)=A_{21}\bar{l}_{10,1}(\lambda)+A_{22}\bar{m}_{10,1}(\lambda)+A_{23}\bar{s}_{10,1}(\lambda)$

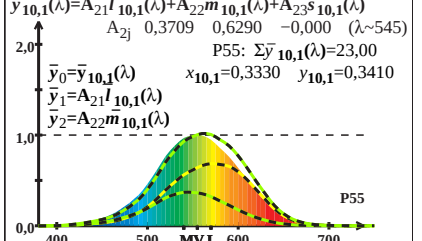
A_{2j} 0,3709 0,6290 −0,000 (λ~545)

P55: $\Sigma\bar{y}_{10,1}(\lambda)=23,00$

$\bar{y}_0=\bar{y}_{10,1}(\lambda)$ $x_{10,1}=0,3330$ $y_{10,1}=0,3410$

$\bar{y}_1=A_{21}\bar{l}_{10,1}(\lambda)$

$\bar{y}_2=A_{22}\bar{m}_{10,1}(\lambda)$



CEO71−7A_P55

CIE10 spectral tristimulus values $\bar{y}_{max}(\lambda)=1$

$\bar{y}_{10,1}(\lambda)=A_{21}\bar{l}_{10,1}(\lambda)+A_{22}\bar{m}_{10,1}(\lambda)+A_{23}\bar{s}_{10,1}(\lambda)$

A_{2j} 0,3709 0,6290 −0,000 (λ~545)

P55: $\Sigma\bar{y}_{10,1}(\lambda)=23,00$

$\bar{y}_0=\bar{y}_{10,1}(\lambda)$ $x_{10,1}=0,3330$ $y_{10,1}=0,3410$

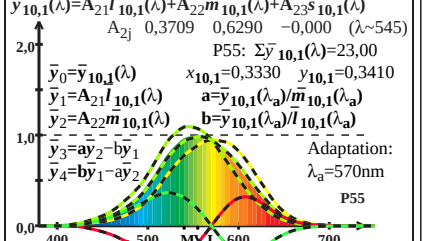
$\bar{y}_1=A_{21}\bar{l}_{10,1}(\lambda)$ $a=\bar{y}_{10,1}(\lambda_a)/\bar{m}_{10,1}(\lambda_a)$

$\bar{y}_2=A_{22}\bar{m}_{10,1}(\lambda)$ $b=\bar{y}_{10,1}(\lambda_a)/\bar{l}_{10,1}(\lambda_a)$

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

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

Adaptation:
λ_a=570nm



CEO71−8A_P55

see similar files: http://farbe.li.tu-berlin.de/CEO7/CEO7.HTM
technical information: http://farbe.li.tu-berlin.de or http://color.li.tu-berlin.de

TUB registration: 20220101-CEO7/CEO7L0NP.PDF /.PS
application for measurement of offset print output

TUB material: code=rha4ta

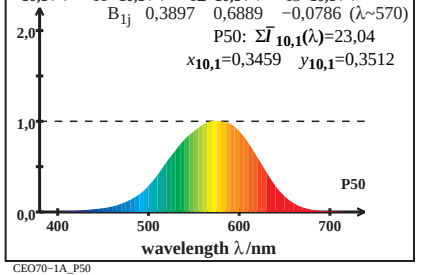
HPE_CIE10-cone sensitivity $\bar{y}_{max}(\lambda)=1$

$\bar{l}_{10,1}(\lambda)=B_{11}\bar{x}_{10,1}(\lambda)+B_{12}\bar{y}_{10,1}(\lambda)+B_{13}\bar{z}_{10,1}(\lambda)$

B_{1j} 0,3897 0,6889 −0,0786 (λ~570)

P50: $\Sigma\bar{l}_{10,1}(\lambda)=23{,}04$

$x_{10,1}=0{,}3459$ $y_{10,1}=0{,}3512$



CEO70−1A_P50

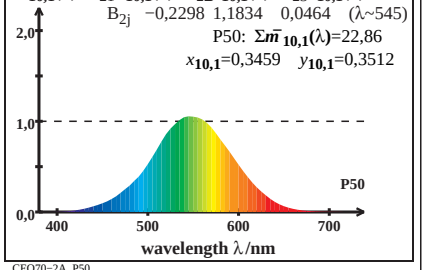
HPE_CIE10-cone sensitivity $\bar{y}_{max}(\lambda)=1$

$\bar{m}_{10,1}(\lambda)=B_{21}\bar{x}_{10,1}(\lambda)+B_{22}\bar{y}_{10,1}(\lambda)+B_{23}\bar{z}_{10,1}(\lambda)$

B_{2j} −0,2298 1,1834 0,0464 (λ~545)

P50: $\Sigma\bar{m}_{10,1}(\lambda)=22{,}86$

$x_{10,1}=0{,}3459$ $y_{10,1}=0{,}3512$



CEO70−2A_P50

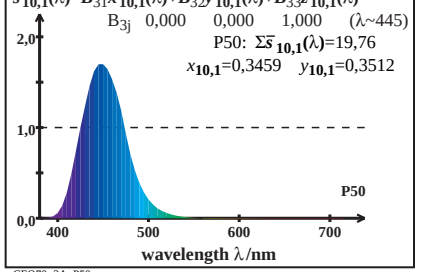
HPE_CIE10-cone sensitivity $\bar{y}_{max}(\lambda)=1$

$\bar{s}_{10,1}(\lambda)=B_{31}\bar{x}_{10,1}(\lambda)+B_{32}\bar{y}_{10,1}(\lambda)+B_{33}\bar{z}_{10,1}(\lambda)$

B_{3j} 0,000 0,000 1,000 (λ~445)

P50: $\Sigma\bar{s}_{10,1}(\lambda)=19{,}76$

$x_{10,1}=0{,}3459$ $y_{10,1}=0{,}3512$



CEO70−3A_P50

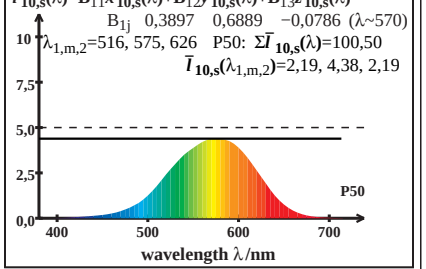
HPE_CIE10-cone sensitivity $Y_{sum}=100$

$\bar{l}_{10,s}(\lambda)=B_{11}\bar{x}_{10,s}(\lambda)+B_{12}\bar{y}_{10,s}(\lambda)+B_{13}\bar{z}_{10,s}(\lambda)$

B_{1j} 0,3897 0,6889 −0,0786 (λ~570)

$\lambda_{1,m,2}=516, 575, 626$ P50: $\Sigma\bar{l}_{10,s}(\lambda)=100{,}50$

$\bar{l}_{10,s}(\lambda_{1,m,2})=2{,}19, 4{,}38, 2{,}19$



CEO70−4A_P50

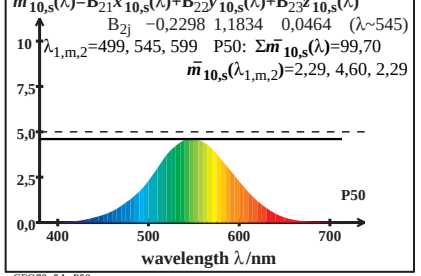
HPE_CIE10-cone sensitivity $Y_{sum}=100$

$\bar{m}_{10,s}(\lambda)=B_{21}\bar{x}_{10,s}(\lambda)+B_{22}\bar{y}_{10,s}(\lambda)+B_{23}\bar{z}_{10,s}(\lambda)$

B_{2j} −0,2298 1,1834 0,0464 (λ~545)

$\lambda_{1,m,2}=499, 545, 599$ P50: $\Sigma\bar{m}_{10,s}(\lambda)=99{,}70$

$\bar{m}_{10,s}(\lambda_{1,m,2})=2{,}29, 4{,}60, 2{,}29$



CEO70−5A_P50

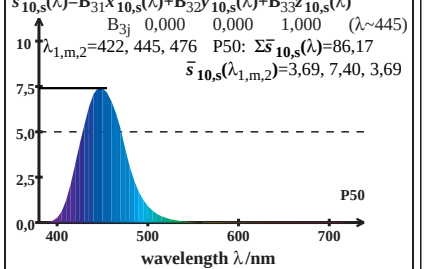
HPE_CIE10-cone sensitivity $Y_{sum}=100$

$\bar{s}_{10,s}(\lambda)=B_{31}\bar{x}_{10,s}(\lambda)+B_{32}\bar{y}_{10,s}(\lambda)+B_{33}\bar{z}_{10,s}(\lambda)$

B_{3j} 0,000 0,000 1,000 (λ~445)

$\lambda_{1,m,2}=422, 445, 476$ P50: $\Sigma\bar{s}_{10,s}(\lambda)=86{,}17$

$\bar{s}_{10,s}(\lambda_{1,m,2})=3{,}69, 7{,}40, 3{,}69$



CEO70−6A_P50

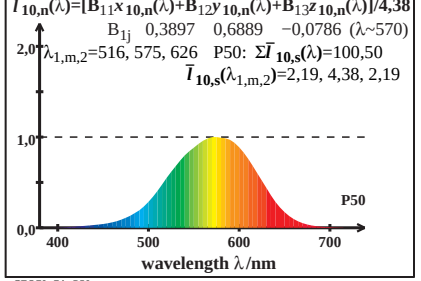
HPE_CIE10-cone sensitivity $l_{max}(\lambda)=1$

$\bar{l}_{10,n}(\lambda)=[B_{11}\bar{x}_{10,n}(\lambda)+B_{12}\bar{y}_{10,n}(\lambda)+B_{13}\bar{z}_{10,n}(\lambda)]/4{,}38$

B_{1j} 0,3897 0,6889 −0,0786 (λ~570)

$\lambda_{1,m,2}=516, 575, 626$ P50: $\Sigma\bar{l}_{10,s}(\lambda)=100{,}50$

$\bar{l}_{10,s}(\lambda_{1,m,2})=2{,}19, 4{,}38, 2{,}19$



CEO70−7A_P50

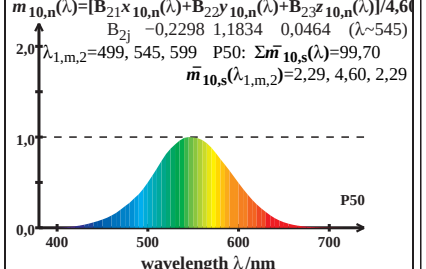
HPE_CIE10-cone sensitivity $\bar{m}_{max}(\lambda)=1$

$\bar{m}_{10,n}(\lambda)=[B_{21}\bar{x}_{10,n}(\lambda)+B_{22}\bar{y}_{10,n}(\lambda)+B_{23}\bar{z}_{10,n}(\lambda)]/4{,}6$

B_{2j} −0,2298 1,1834 0,0464 (λ~545)

$\lambda_{1,m,2}=499, 545, 599$ P50: $\Sigma\bar{m}_{10,s}(\lambda)=99{,}70$

$\bar{m}_{10,s}(\lambda_{1,m,2})=2{,}29, 4{,}60, 2{,}29$



CEO70−8A_P50

CEO70−7N

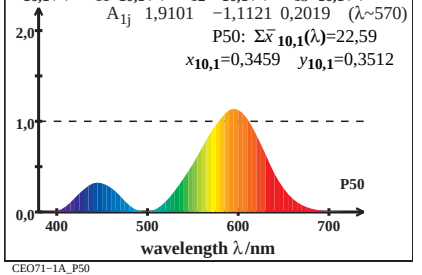
CIE10 spectral tristimulus values $\bar{y}_{max}(\lambda)=1$

$\bar{x}_{10,1}(\lambda)=A_{11}\bar{l}_{10,1}(\lambda)+A_{12}\bar{m}_{10,1}(\lambda)+A_{13}\bar{s}_{10,1}(\lambda)$

A_{1j} 1,9101 −1,1121 0,2019 (λ~570)

P50: $\Sigma\bar{x}_{10,1}(\lambda)=22{,}59$

$x_{10,1}=0{,}3459$ $y_{10,1}=0{,}3512$



CEO71−1A_P50

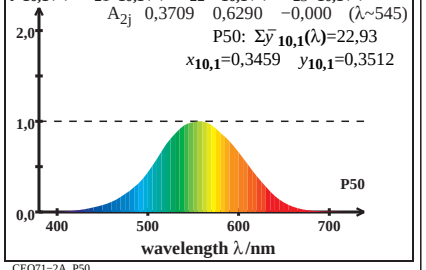
CIE10 spectral tristimulus values $\bar{y}_{max}(\lambda)=1$

$\bar{y}_{10,1}(\lambda)=A_{21}\bar{l}_{10,1}(\lambda)+A_{22}\bar{m}_{10,1}(\lambda)+A_{23}\bar{s}_{10,1}(\lambda)$

A_{2j} 0,3709 0,6290 −0,000 (λ~545)

P50: $\Sigma\bar{y}_{10,1}(\lambda)=22{,}93$

$x_{10,1}=0{,}3459$ $y_{10,1}=0{,}3512$



CEO71−2A_P50

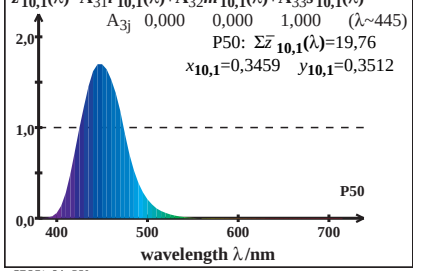
CIE10 spectral tristimulus values $\bar{y}_{max}(\lambda)=1$

$\bar{z}_{10,1}(\lambda)=A_{31}\bar{l}_{10,1}(\lambda)+A_{32}\bar{m}_{10,1}(\lambda)+A_{33}\bar{s}_{10,1}(\lambda)$

A_{3j} 0,000 0,000 1,000 (λ~445)

P50: $\Sigma\bar{z}_{10,1}(\lambda)=19{,}76$

$x_{10,1}=0{,}3459$ $y_{10,1}=0{,}3512$



CEO71−3A_P50

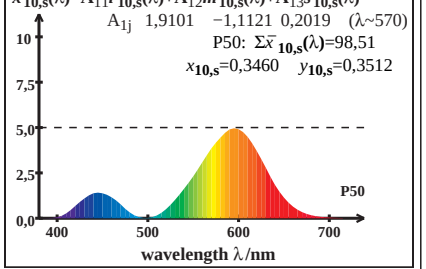
CIE10 spectral tristimulus values $Y_{sum}=100$

$\bar{x}_{10,s}(\lambda)=A_{11}\bar{l}_{10,s}(\lambda)+A_{12}\bar{m}_{10,s}(\lambda)+A_{13}\bar{s}_{10,s}(\lambda)$

A_{1j} 1,9101 −1,1121 0,2019 (λ~570)

P50: $\Sigma\bar{x}_{10,s}(\lambda)=98{,}51$

$x_{10,s}=0{,}3460$ $y_{10,s}=0{,}3512$



CEO71−4A_P50

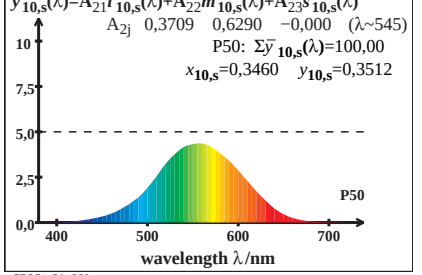
CIE10 spectral tristimulus values $Y_{sum}=100$

$\bar{y}_{10,s}(\lambda)=A_{21}\bar{l}_{10,s}(\lambda)+A_{22}\bar{m}_{10,s}(\lambda)+A_{23}\bar{s}_{10,s}(\lambda)$

A_{2j} 0,3709 0,6290 −0,000 (λ~545)

P50: $\Sigma\bar{y}_{10,s}(\lambda)=100{,}00$

$x_{10,s}=0{,}3460$ $y_{10,s}=0{,}3512$



CEO71−5A_P50

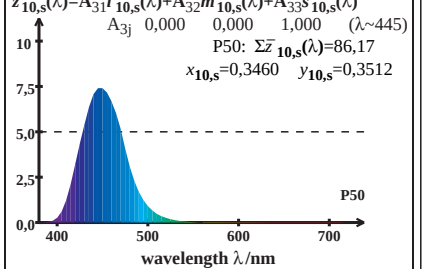
CIE10 spectral tristimulus values $Y_{sum}=100$

$\bar{z}_{10,s}(\lambda)=A_{31}\bar{l}_{10,s}(\lambda)+A_{32}\bar{m}_{10,s}(\lambda)+A_{33}\bar{s}_{10,s}(\lambda)$

A_{3j} 0,000 0,000 1,000 (λ~445)

P50: $\Sigma\bar{z}_{10,s}(\lambda)=86{,}17$

$x_{10,s}=0{,}3460$ $y_{10,s}=0{,}3512$



CEO71−6A_P50

CIE10 spectral tristimulus values $\bar{y}_{max}(\lambda)=1$

$\bar{y}_{10,1}(\lambda)=A_{21}\bar{l}_{10,1}(\lambda)+A_{22}\bar{m}_{10,1}(\lambda)+A_{23}\bar{s}_{10,1}(\lambda)$

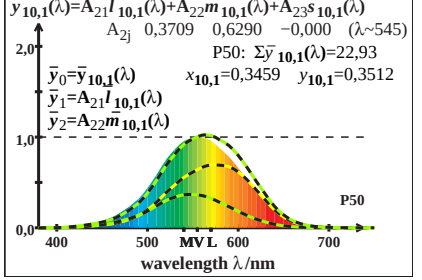
A_{2j} 0,3709 0,6290 −0,000 (λ~545)

P50: $\Sigma\bar{y}_{10,1}(\lambda)=22{,}93$

$\bar{y}_0=\bar{y}_{10,1}(\lambda)$ $x_{10,1}=0{,}3459$ $y_{10,1}=0{,}3512$

$\bar{y}_1=A_{21}\bar{l}_{10,1}(\lambda)$

$\bar{y}_2=A_{22}\bar{m}_{10,1}(\lambda)$



CEO71−7A_P50

CIE10 spectral tristimulus values $\bar{y}_{max}(\lambda)=1$

$\bar{y}_{10,1}(\lambda)=A_{21}\bar{l}_{10,1}(\lambda)+A_{22}\bar{m}_{10,1}(\lambda)+A_{23}\bar{s}_{10,1}(\lambda)$

A_{2j} 0,3709 0,6290 −0,000 (λ~545)

P50: $\Sigma\bar{y}_{10,1}(\lambda)=22{,}93$

$\bar{y}_0=\bar{y}_{10,1}(\lambda)$ $x_{10,1}=0{,}3459$ $y_{10,1}=0{,}3512$

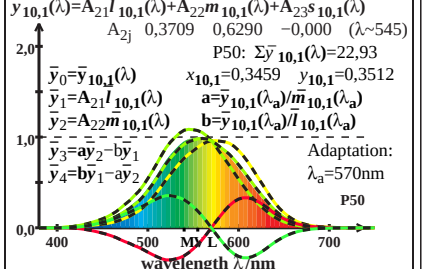
$\bar{y}_1=A_{21}\bar{l}_{10,1}(\lambda)$ $a=\bar{y}_{10,1}(\lambda_a)/\bar{m}_{10,1}(\lambda_a)$

$\bar{y}_2=A_{22}\bar{m}_{10,1}(\lambda)$ $b=\bar{y}_{10,1}(\lambda_a)/\bar{l}_{10,1}(\lambda_a)$

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

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

Adaptation:
$\lambda_a=570$nm



CEO71−8A_P50

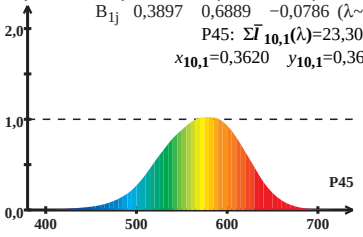
CEO71−7N

see similar files: http://farbe.li.tu-berlin.de/CEO7/CEO7.HTM
technical information: http://farbe.li.tu-berlin.de or http://color.li.tu-berlin.de

TUB registration: 20220101-CEO7/CEO7L0NP.PDF /.PS
application for measurement of offset print output

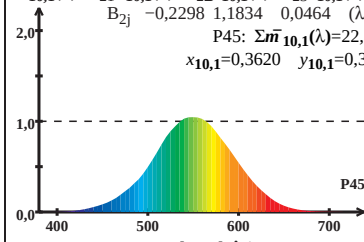
TUB material: code=rha4ta

HPE_CIE10-cone sensitivity $\bar{y}_{max}(\lambda)=1$
$\bar{l}_{10,1}(\lambda)=B_{11}\bar{x}_{10,1}(\lambda)+B_{12}\bar{y}_{10,1}(\lambda)+B_{13}\bar{z}_{10,1}(\lambda)$
B_{1j} 0,3897 0,6889 −0,0786 (λ~570)
P45: $\Sigma\bar{l}_{10,1}(\lambda)=23{,}30$
$x_{10,1}=0{,}3620$ $y_{10,1}=0{,}3627$



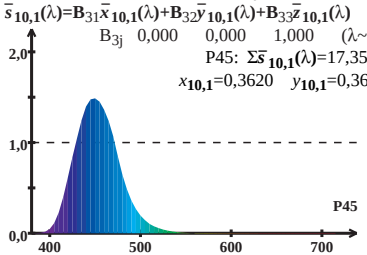
CEO70−1A_P45

HPE_CIE10-cone sensitivity $\bar{y}_{max}(\lambda)=1$
$\bar{m}_{10,1}(\lambda)=B_{21}\bar{x}_{10,1}(\lambda)+B_{22}\bar{y}_{10,1}(\lambda)+B_{23}\bar{z}_{10,1}(\lambda)$
B_{2j} −0,2298 1,1834 0,0464 (λ~545)
P45: $\Sigma\bar{m}_{10,1}(\lambda)=22{,}64$
$x_{10,1}=0{,}3620$ $y_{10,1}=0{,}3627$



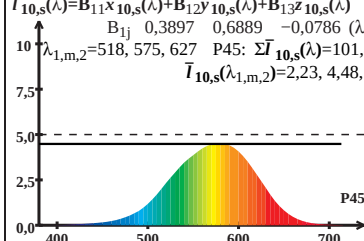
CEO70−2A_P45

HPE_CIE10-cone sensitivity $\bar{y}_{max}(\lambda)=1$
$\bar{s}_{10,1}(\lambda)=B_{31}\bar{x}_{10,1}(\lambda)+B_{32}\bar{y}_{10,1}(\lambda)+B_{33}\bar{z}_{10,1}(\lambda)$
B_{3j} 0,000 0,000 1,000 (λ~445)
P45: $\Sigma\bar{s}_{10,1}(\lambda)=17{,}35$
$x_{10,1}=0{,}3620$ $y_{10,1}=0{,}3627$



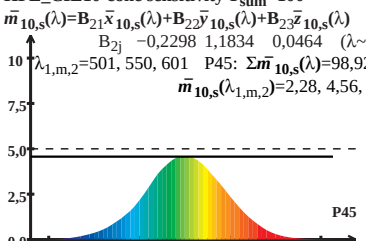
CEO70−3A_P45

HPE_CIE10-cone sensitivity $Y_{sum}=100$
$\bar{l}_{10,s}(\lambda)=B_{11}\bar{x}_{10,s}(\lambda)+B_{12}\bar{y}_{10,s}(\lambda)+B_{13}\bar{z}_{10,s}(\lambda)$
B_{1j} 0,3897 0,6889 −0,0786 (λ~570)
$\lambda_{1,m,2}$=518, 575, 627 P45: $\Sigma\bar{l}_{10,s}(\lambda)=101{,}82$
$\bar{l}_{10,s}(\lambda_{1,m,2})$=2,23, 4,48, 2,23



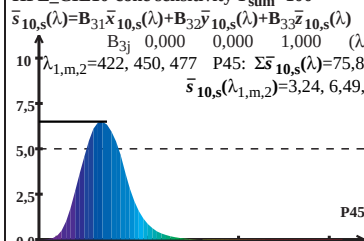
CEO70−4A_P45

HPE_CIE10-cone sensitivity $Y_{sum}=100$
$\bar{m}_{10,s}(\lambda)=B_{21}\bar{x}_{10,s}(\lambda)+B_{22}\bar{y}_{10,s}(\lambda)+B_{23}\bar{z}_{10,s}(\lambda)$
B_{2j} −0,2298 1,1834 0,0464 (λ~545)
$\lambda_{1,m,2}$=501, 550, 601 P45: $\Sigma\bar{m}_{10,s}(\lambda)=98{,}92$
$\bar{m}_{10,s}(\lambda_{1,m,2})$=2,28, 4,56, 2,28



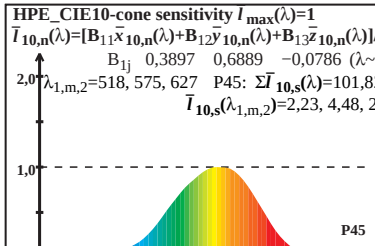
CEO70−5A_P45

HPE_CIE10-cone sensitivity $Y_{sum}=100$
$\bar{s}_{10,s}(\lambda)=B_{31}\bar{x}_{10,s}(\lambda)+B_{32}\bar{y}_{10,s}(\lambda)+B_{33}\bar{z}_{10,s}(\lambda)$
B_{3j} 0,000 0,000 1,000 (λ~445)
$\lambda_{1,m,2}$=422, 450, 477 P45: $\Sigma\bar{s}_{10,s}(\lambda)=75{,}80$
$\bar{s}_{10,s}(\lambda_{1,m,2})$=3,24, 6,49, 3,24



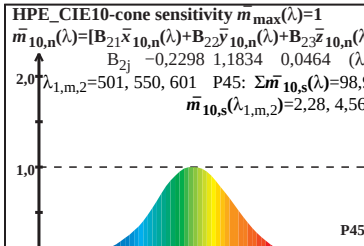
CEO70−6A_P45

HPE_CIE10-cone sensitivity $l_{max}(\lambda)=1$
$\bar{l}_{10,n}(\lambda)=[B_{11}\bar{x}_{10,n}(\lambda)+B_{12}\bar{y}_{10,n}(\lambda)+B_{13}\bar{z}_{10,n}(\lambda)]/4{,}48$
B_{1j} 0,3897 0,6889 −0,0786 (λ~570)
$\lambda_{1,m,2}$=518, 575, 627 P45: $\Sigma\bar{l}_{10,s}(\lambda)=101{,}82$
$\bar{l}_{10,s}(\lambda_{1,m,2})$=2,23, 4,48, 2,23



CEO70−7A_P45

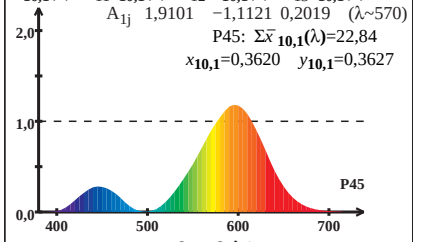
HPE_CIE10-cone sensitivity $\bar{m}_{max}(\lambda)=1$
$\bar{m}_{10,n}(\lambda)=[B_{21}\bar{x}_{10,n}(\lambda)+B_{22}\bar{y}_{10,n}(\lambda)+B_{23}\bar{z}_{10,n}(\lambda)]/4{,}5$
B_{2j} −0,2298 1,1834 0,0464 (λ~545)
$\lambda_{1,m,2}$=501, 550, 601 P45: $\Sigma\bar{m}_{10,s}(\lambda)=98{,}92$
$\bar{m}_{10,s}(\lambda_{1,m,2})$=2,28, 4,56, 2,28



CEO70−8A_P45

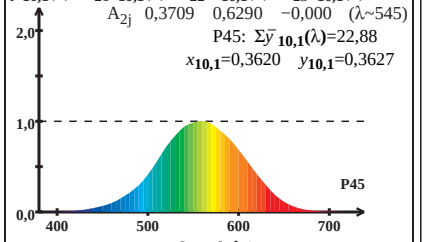
CEO70−7N

CIE10 spectral tristimulus values $\bar{y}_{max}(\lambda)=1$
$\bar{x}_{10,1}(\lambda)=A_{11}\bar{l}_{10,1}(\lambda)+A_{12}\bar{m}_{10,1}(\lambda)+A_{13}\bar{s}_{10,1}(\lambda)$
A_{1j} 1,9101 −1,1121 0,2019 (λ~570)
P45: $\Sigma\bar{x}_{10,1}(\lambda)=22{,}84$
$x_{10,1}=0{,}3620$ $y_{10,1}=0{,}3627$



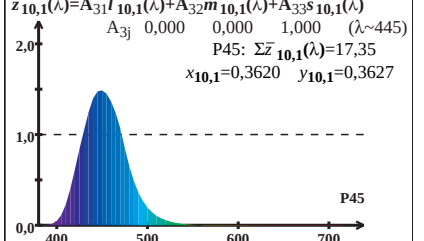
CEO71−1A_P45

CIE10 spectral tristimulus values $\bar{y}_{max}(\lambda)=1$
$\bar{y}_{10,1}(\lambda)=A_{21}\bar{l}_{10,1}(\lambda)+A_{22}\bar{m}_{10,1}(\lambda)+A_{23}\bar{s}_{10,1}(\lambda)$
A_{2j} 0,3709 0,6290 −0,000 (λ~545)
P45: $\Sigma\bar{y}_{10,1}(\lambda)=22{,}88$
$x_{10,1}=0{,}3620$ $y_{10,1}=0{,}3627$



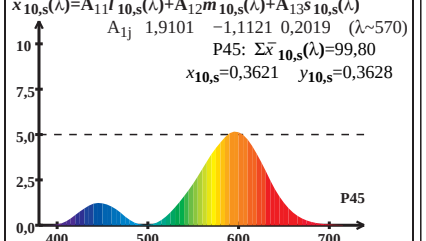
CEO71−2A_P45

CIE10 spectral tristimulus values $\bar{y}_{max}(\lambda)=1$
$\bar{z}_{10,1}(\lambda)=A_{31}\bar{l}_{10,1}(\lambda)+A_{32}\bar{m}_{10,1}(\lambda)+A_{33}\bar{s}_{10,1}(\lambda)$
A_{3j} 0,000 0,000 1,000 (λ~445)
P45: $\Sigma\bar{z}_{10,1}(\lambda)=17{,}35$
$x_{10,1}=0{,}3620$ $y_{10,1}=0{,}3627$



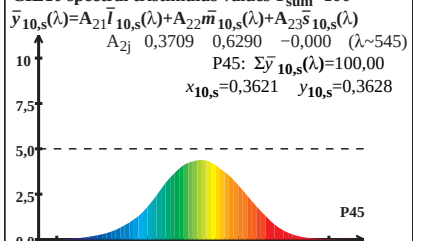
CEO71−3A_P45

CIE10 spectral tristimulus values $Y_{sum}=100$
$\bar{x}_{10,s}(\lambda)=A_{11}\bar{l}_{10,s}(\lambda)+A_{12}\bar{m}_{10,s}(\lambda)+A_{13}\bar{s}_{10,s}(\lambda)$
A_{1j} 1,9101 −1,1121 0,2019 (λ~570)
P45: $\Sigma\bar{x}_{10,s}(\lambda)=99{,}80$
$x_{10,s}=0{,}3621$ $y_{10,s}=0{,}3628$



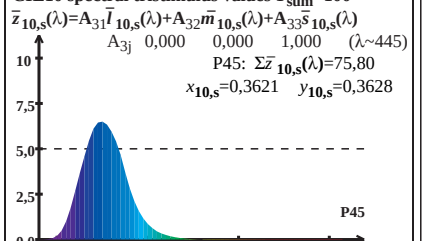
CEO71−4A_P45

CIE10 spectral tristimulus values $Y_{sum}=100$
$\bar{y}_{10,s}(\lambda)=A_{21}\bar{l}_{10,s}(\lambda)+A_{22}\bar{m}_{10,s}(\lambda)+A_{23}\bar{s}_{10,s}(\lambda)$
A_{2j} 0,3709 0,6290 −0,000 (λ~545)
P45: $\Sigma\bar{y}_{10,s}(\lambda)=100{,}00$
$x_{10,s}=0{,}3621$ $y_{10,s}=0{,}3628$



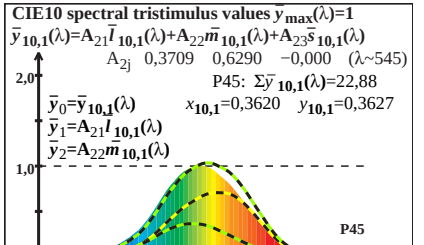
CEO71−5A_P45

CIE10 spectral tristimulus values $Y_{sum}=100$
$\bar{z}_{10,s}(\lambda)=A_{31}\bar{l}_{10,s}(\lambda)+A_{32}\bar{m}_{10,s}(\lambda)+A_{33}\bar{s}_{10,s}(\lambda)$
A_{3j} 0,000 0,000 1,000 (λ~445)
P45: $\Sigma\bar{z}_{10,s}(\lambda)=75{,}80$
$x_{10,s}=0{,}3621$ $y_{10,s}=0{,}3628$



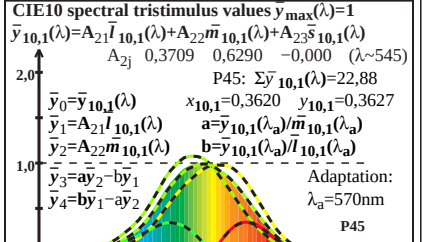
CEO71−6A_P45

CIE10 spectral tristimulus values $\bar{y}_{max}(\lambda)=1$
$\bar{y}_{10,1}(\lambda)=A_{21}\bar{l}_{10,1}(\lambda)+A_{22}\bar{m}_{10,1}(\lambda)+A_{23}\bar{s}_{10,1}(\lambda)$
A_{2j} 0,3709 0,6290 −0,000 (λ~545)
P45: $\Sigma\bar{y}_{10,1}(\lambda)=22{,}88$
$\bar{y}_0=\bar{y}_{10,1}(\lambda)$ $x_{10,1}=0{,}3620$ $y_{10,1}=0{,}3627$
$\bar{y}_1=A_{21}\bar{l}_{10,1}(\lambda)$
$\bar{y}_2=A_{22}\bar{m}_{10,1}(\lambda)$



CEO71−7A_P45

CIE10 spectral tristimulus values $\bar{y}_{max}(\lambda)=1$
$\bar{y}_{10,1}(\lambda)=A_{21}\bar{l}_{10,1}(\lambda)+A_{22}\bar{m}_{10,1}(\lambda)+A_{23}\bar{s}_{10,1}(\lambda)$
A_{2j} 0,3709 0,6290 −0,000 (λ~545)
P45: $\Sigma\bar{y}_{10,1}(\lambda)=22{,}88$
$\bar{y}_0=\bar{y}_{10,1}(\lambda)$ $x_{10,1}=0{,}3620$ $y_{10,1}=0{,}3627$
$\bar{y}_1=A_{21}\bar{l}_{10,1}(\lambda)$ $a=\bar{y}_{10,1}(\lambda_a)/\bar{m}_{10,1}(\lambda_a)$
$\bar{y}_2=A_{22}\bar{m}_{10,1}(\lambda)$ $b=\bar{y}_{10,1}(\lambda_a)/\bar{l}_{10,1}(\lambda_a)$
$\bar{y}_3=a\bar{y}_2-b\bar{y}_1$
$\bar{y}_4=b\bar{y}_1-a\bar{y}_2$
Adaptation:
λ_a=570nm



CEO71−8A_P45

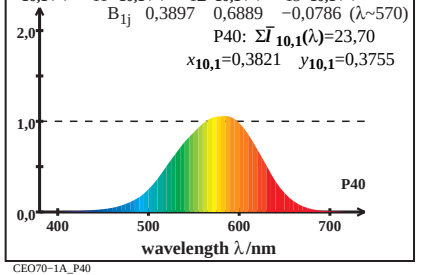
CEO71−7N

see similar files: http://farbe.li.tu-berlin.de/CEO7/CEO7.HTM
technical information: http://farbe.li.tu-berlin.de or http://color.li.tu-berlin.de

TUB registration: 20220101-CEO7/CEO7L0NP.PDF /.PS
application for measurement of offset print output

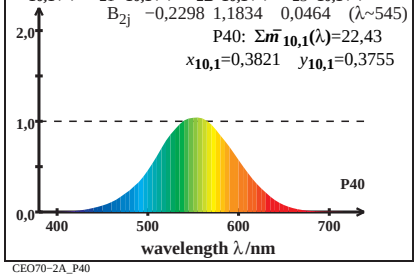
TUB material: code=rha4ta

HPE_CIE10-cone sensitivity $\bar{y}_{max}(\lambda)=1$
$\bar{l}_{10,1}(\lambda)=B_{11}\bar{x}_{10,1}(\lambda)+B_{12}\bar{y}_{10,1}(\lambda)+B_{13}\bar{z}_{10,1}(\lambda)$
B_{1j} 0,3897 0,6889 −0,0786 (λ~570)
P40: $\Sigma\bar{l}_{10,1}(\lambda)=23{,}70$
$x_{10,1}=0{,}3821$ $y_{10,1}=0{,}3755$



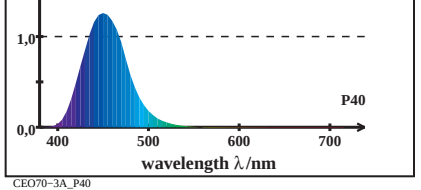
CEO70−1A_P40

HPE_CIE10-cone sensitivity $\bar{y}_{max}(\lambda)=1$
$\bar{m}_{10,1}(\lambda)=B_{21}\bar{x}_{10,1}(\lambda)+B_{22}\bar{y}_{10,1}(\lambda)+B_{23}\bar{z}_{10,1}(\lambda)$
B_{2j} −0,2298 1,1834 0,0464 (λ~545)
P40: $\Sigma\bar{m}_{10,1}(\lambda)=22{,}43$
$x_{10,1}=0{,}3821$ $y_{10,1}=0{,}3755$



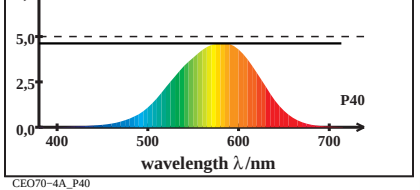
CEO70−2A_P40

HPE_CIE10-cone sensitivity $\bar{y}_{max}(\lambda)=1$
$\bar{s}_{10,1}(\lambda)=B_{31}\bar{x}_{10,1}(\lambda)+B_{32}\bar{y}_{10,1}(\lambda)+B_{33}\bar{z}_{10,1}(\lambda)$
B_{3j} 0,000 0,000 1,000 (λ~445)
P40: $\Sigma\bar{s}_{10,1}(\lambda)=14{,}76$
$x_{10,1}=0{,}3821$ $y_{10,1}=0{,}3755$



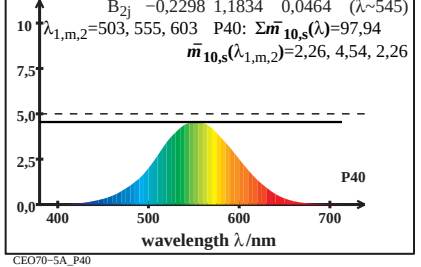
CEO70−3A_P40

HPE_CIE10-cone sensitivity $Y_{sum}=100$
$\bar{l}_{10,s}(\lambda)=B_{11}\bar{x}_{10,s}(\lambda)+B_{12}\bar{y}_{10,s}(\lambda)+B_{13}\bar{z}_{10,s}(\lambda)$
B_{1j} 0,3897 0,6889 −0,0786 (λ~570)
$\lambda_{1,m,2}=521, 585, 629$ P40: $\Sigma\bar{l}_{10,s}(\lambda)=103{,}48$
$\bar{l}_{10,s}(\lambda_{1,m,2})=2{,}30, 4{,}62, 2{,}30$



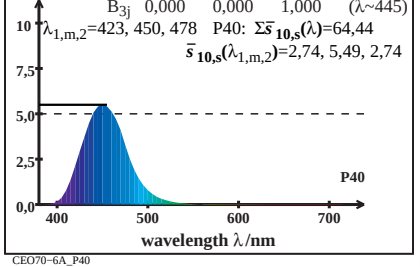
CEO70−4A_P40

HPE_CIE10-cone sensitivity $Y_{sum}=100$
$\bar{m}_{10,s}(\lambda)=B_{21}\bar{x}_{10,s}(\lambda)+B_{22}\bar{y}_{10,s}(\lambda)+B_{23}\bar{z}_{10,s}(\lambda)$
B_{2j} −0,2298 1,1834 0,0464 (λ~545)
$\lambda_{1,m,2}=503, 555, 603$ P40: $\Sigma\bar{m}_{10,s}(\lambda)=97{,}94$
$\bar{m}_{10,s}(\lambda_{1,m,2})=2{,}26, 4{,}54, 2{,}26$



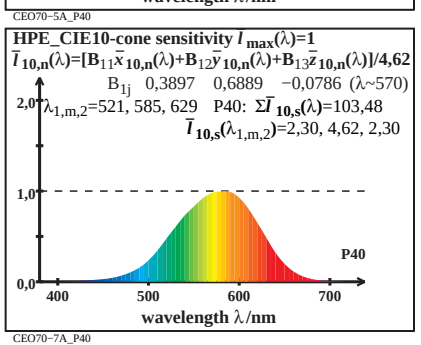
CEO70−5A_P40

HPE_CIE10-cone sensitivity $Y_{sum}=100$
$\bar{s}_{10,s}(\lambda)=B_{31}\bar{x}_{10,s}(\lambda)+B_{32}\bar{y}_{10,s}(\lambda)+B_{33}\bar{z}_{10,s}(\lambda)$
B_{3j} 0,000 0,000 1,000 (λ~445)
$\lambda_{1,m,2}=423, 450, 478$ P40: $\Sigma\bar{s}_{10,s}(\lambda)=64{,}44$
$\bar{s}_{10,s}(\lambda_{1,m,2})=2{,}74, 5{,}49, 2{,}74$



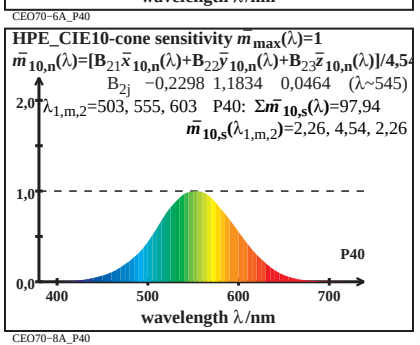
CEO70−6A_P40

HPE_CIE10-cone sensitivity $l_{max}(\lambda)=1$
$\bar{l}_{10,n}(\lambda)=[B_{11}\bar{x}_{10,n}(\lambda)+B_{12}\bar{y}_{10,n}(\lambda)+B_{13}\bar{z}_{10,n}(\lambda)]/4{,}62$
B_{1j} 0,3897 0,6889 −0,0786 (λ~570)
$\lambda_{1,m,2}=521, 585, 629$ P40: $\Sigma\bar{l}_{10,s}(\lambda)=103{,}48$
$\bar{l}_{10,s}(\lambda_{1,m,2})=2{,}30, 4{,}62, 2{,}30$



CEO70−7A_P40

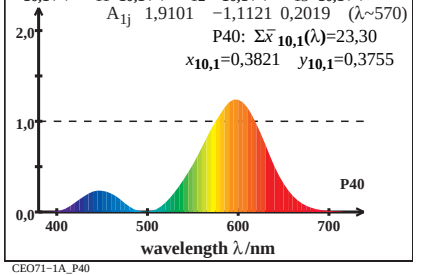
HPE_CIE10-cone sensitivity $\bar{m}_{max}(\lambda)=1$
$\bar{m}_{10,n}(\lambda)=[B_{21}\bar{x}_{10,n}(\lambda)+B_{22}\bar{y}_{10,n}(\lambda)+B_{23}\bar{z}_{10,n}(\lambda)]/4{,}54$
B_{2j} −0,2298 1,1834 0,0464 (λ~545)
$\lambda_{1,m,2}=503, 555, 603$ P40: $\Sigma\bar{m}_{10,s}(\lambda)=97{,}94$
$\bar{m}_{10,s}(\lambda_{1,m,2})=2{,}26, 4{,}54, 2{,}26$



CEO70−8A_P40

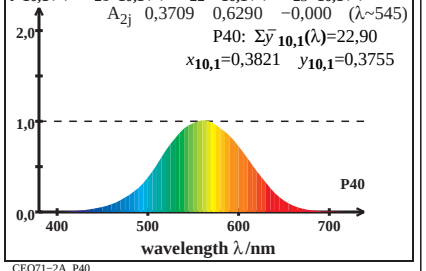
CEO70−7N

CIE10 spectral tristimulus values $\bar{y}_{max}(\lambda)=1$
$\bar{x}_{10,1}(\lambda)=A_{11}\bar{l}_{10,1}(\lambda)+A_{12}\bar{m}_{10,1}(\lambda)+A_{13}\bar{s}_{10,1}(\lambda)$
A_{1j} 1,9101 −1,1121 0,2019 (λ~570)
P40: $\Sigma\bar{x}_{10,1}(\lambda)=23{,}30$
$x_{10,1}=0{,}3821$ $y_{10,1}=0{,}3755$



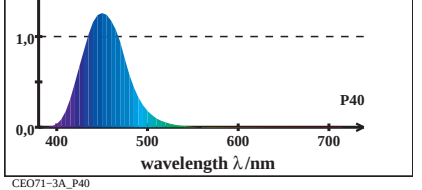
CEO71−1A_P40

CIE10 spectral tristimulus values $\bar{y}_{max}(\lambda)=1$
$\bar{y}_{10,1}(\lambda)=A_{21}\bar{l}_{10,1}(\lambda)+A_{22}\bar{m}_{10,1}(\lambda)+A_{23}\bar{s}_{10,1}(\lambda)$
A_{2j} 0,3709 0,6290 −0,000 (λ~545)
P40: $\Sigma\bar{y}_{10,1}(\lambda)=22{,}90$
$x_{10,1}=0{,}3821$ $y_{10,1}=0{,}3755$



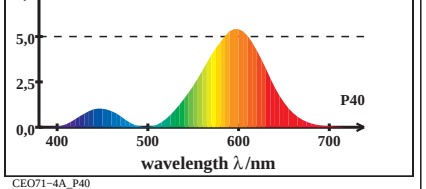
CEO71−2A_P40

CIE10 spectral tristimulus values $\bar{y}_{max}(\lambda)=1$
$\bar{z}_{10,1}(\lambda)=A_{31}\bar{l}_{10,1}(\lambda)+A_{32}\bar{m}_{10,1}(\lambda)+A_{33}\bar{s}_{10,1}(\lambda)$
A_{3j} 0,000 0,000 1,000 (λ~445)
P40: $\Sigma\bar{z}_{10,1}(\lambda)=14{,}76$
$x_{10,1}=0{,}3821$ $y_{10,1}=0{,}3755$



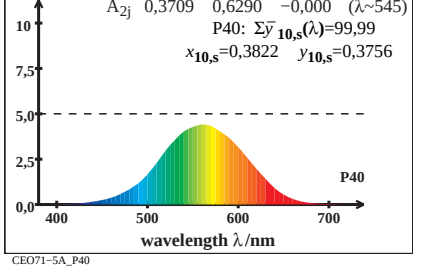
CEO71−3A_P40

CIE10 spectral tristimulus values $Y_{sum}=100$
$\bar{x}_{10,s}(\lambda)=A_{11}\bar{l}_{10,s}(\lambda)+A_{12}\bar{m}_{10,s}(\lambda)+A_{13}\bar{s}_{10,s}(\lambda)$
A_{1j} 1,9101 −1,1121 0,2019 (λ~570)
P40: $\Sigma\bar{x}_{10,s}(\lambda)=101{,}75$
$x_{10,s}=0{,}3822$ $y_{10,s}=0{,}3756$



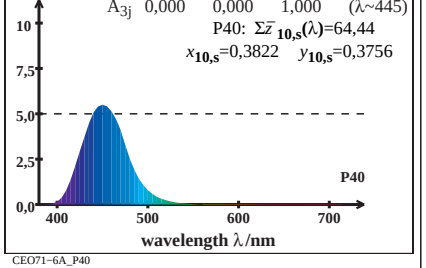
CEO71−4A_P40

CIE10 spectral tristimulus values $Y_{sum}=100$
$\bar{y}_{10,s}(\lambda)=A_{21}\bar{l}_{10,s}(\lambda)+A_{22}\bar{m}_{10,s}(\lambda)+A_{23}\bar{s}_{10,s}(\lambda)$
A_{2j} 0,3709 0,6290 −0,000 (λ~545)
P40: $\Sigma\bar{y}_{10,s}(\lambda)=99{,}99$
$x_{10,s}=0{,}3822$ $y_{10,s}=0{,}3756$



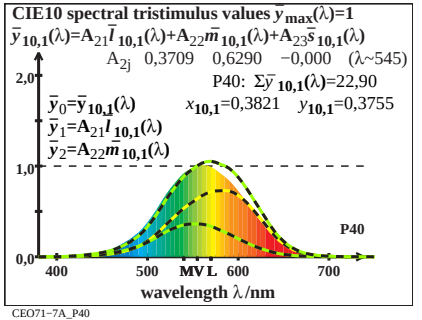
CEO71−5A_P40

CIE10 spectral tristimulus values $Y_{sum}=100$
$\bar{z}_{10,s}(\lambda)=A_{31}\bar{l}_{10,s}(\lambda)+A_{32}\bar{m}_{10,s}(\lambda)+A_{33}\bar{s}_{10,s}(\lambda)$
A_{3j} 0,000 0,000 1,000 (λ~445)
P40: $\Sigma\bar{z}_{10,s}(\lambda)=64{,}44$
$x_{10,s}=0{,}3822$ $y_{10,s}=0{,}3756$



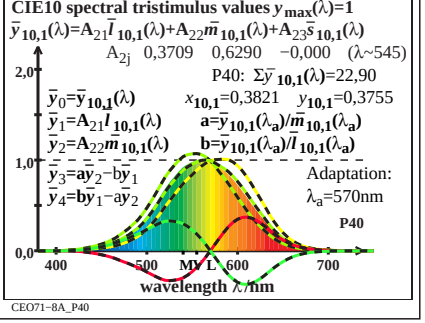
CEO71−6A_P40

CIE10 spectral tristimulus values $\bar{y}_{max}(\lambda)=1$
$\bar{y}_{10,1}(\lambda)=A_{21}\bar{l}_{10,1}(\lambda)+A_{22}\bar{m}_{10,1}(\lambda)+A_{23}\bar{s}_{10,1}(\lambda)$
A_{2j} 0,3709 0,6290 −0,000 (λ~545)
P40: $\Sigma\bar{y}_{10,1}(\lambda)=22{,}90$
$\bar{y}_0=\bar{y}_{10,1}(\lambda)$ $x_{10,1}=0{,}3821$ $y_{10,1}=0{,}3755$
$\bar{y}_1=A_{21}\bar{l}_{10,1}(\lambda)$
$\bar{y}_2=A_{22}\bar{m}_{10,1}(\lambda)$



CEO71−7A_P40

CIE10 spectral tristimulus values $\bar{y}_{max}(\lambda)=1$
$\bar{y}_{10,1}(\lambda)=A_{21}\bar{l}_{10,1}(\lambda)+A_{22}\bar{m}_{10,1}(\lambda)+A_{23}\bar{s}_{10,1}(\lambda)$
A_{2j} 0,3709 0,6290 −0,000 (λ~545)
P40: $\Sigma\bar{y}_{10,1}(\lambda)=22{,}90$
$\bar{y}_0=\bar{y}_{10,1}(\lambda)$ $x_{10,1}=0{,}3821$ $y_{10,1}=0{,}3755$
$\bar{y}_1=A_{21}\bar{l}_{10,1}(\lambda)$ $a=\bar{y}_{10,1}(\lambda_a)/\bar{m}_{10,1}(\lambda_a)$
$\bar{y}_2=A_{22}\bar{m}_{10,1}(\lambda)$ $b=\bar{y}_{10,1}(\lambda_a)/\bar{l}_{10,1}(\lambda_a)$
$\bar{y}_3=a\bar{y}_2-b\bar{y}_1$
$\bar{y}_4=b\bar{y}_1-a\bar{y}_2$
Adaptation:
$\lambda_a=570$nm



CEO71−8A_P40

CEO71−7N

TUB-test chart CEO7; HPE-CIE_10-degree colorimetry, CIE and R21 components of $\bar{y}(\lambda)$
Cone sensivity, transformation, and spectral tristimulus values for CIE illuminant P40, linear data

see similar files: http://farbe.li.tu-berlin.de/CEO7/CEO7.HTM
technical information: http://farbe.li.tu-berlin.de or http://color.li.tu-berlin.de

TUB registration: 20220101-CEO7/CEO7L0NP.PDF /.PS
application for measurement of offset print output

TUB material: code=rha4ta

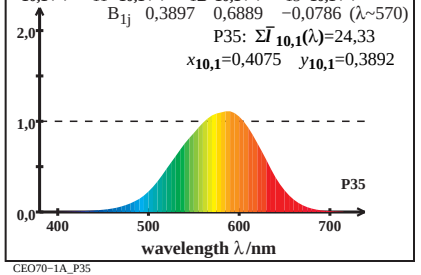
HPE_CIE10-cone sensitivity $\bar{y}_{max}(\lambda)=1$

$\bar{l}_{10,1}(\lambda)=B_{11}\bar{x}_{10,1}(\lambda)+B_{12}\bar{y}_{10,1}(\lambda)+B_{13}\bar{z}_{10,1}(\lambda)$

B_{1j} 0,3897 0,6889 −0,0786 (λ~570)

P35: $\Sigma\bar{l}_{10,1}(\lambda)=24,33$

$x_{10,1}=0,4075$ $y_{10,1}=0,3892$



CEO70−1A_P35

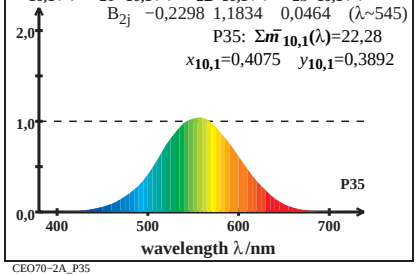
HPE_CIE10-cone sensitivity $\bar{y}_{max}(\lambda)=1$

$\bar{m}_{10,1}(\lambda)=B_{21}\bar{x}_{10,1}(\lambda)+B_{22}\bar{y}_{10,1}(\lambda)+B_{23}\bar{z}_{10,1}(\lambda)$

B_{2j} −0,2298 1,1834 0,0464 (λ~545)

P35: $\Sigma\bar{m}_{10,1}(\lambda)=22,28$

$x_{10,1}=0,4075$ $y_{10,1}=0,3892$



CEO70−2A_P35

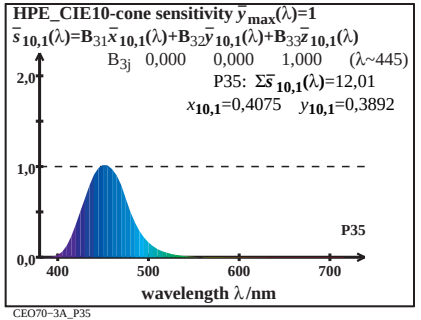
HPE_CIE10-cone sensitivity $\bar{y}_{max}(\lambda)=1$

$\bar{s}_{10,1}(\lambda)=B_{31}\bar{x}_{10,1}(\lambda)+B_{32}\bar{y}_{10,1}(\lambda)+B_{33}\bar{z}_{10,1}(\lambda)$

B_{3j} 0,000 0,000 1,000 (λ~445)

P35: $\Sigma\bar{s}_{10,1}(\lambda)=12,01$

$x_{10,1}=0,4075$ $y_{10,1}=0,3892$



CEO70−3A_P35

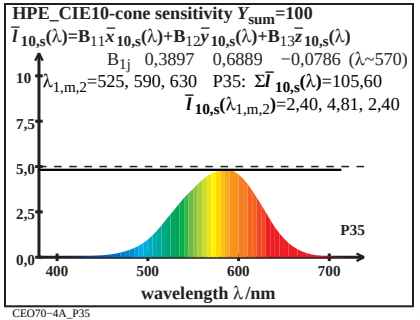
HPE_CIE10-cone sensitivity $Y_{sum}=100$

$\bar{l}_{10,s}(\lambda)=B_{11}\bar{x}_{10,s}(\lambda)+B_{12}\bar{y}_{10,s}(\lambda)+B_{13}\bar{z}_{10,s}(\lambda)$

B_{1j} 0,3897 0,6889 −0,0786 (λ~570)

$\lambda_{1,m,2}$=525, 590, 630 P35: $\Sigma\bar{l}_{10,s}(\lambda)=105,60$

$\bar{l}_{10,s}(\lambda_{1,m,2})$=2,40, 4,81, 2,40



CEO70−4A_P35

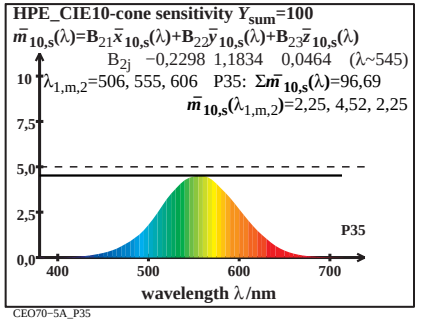
HPE_CIE10-cone sensitivity $Y_{sum}=100$

$\bar{m}_{10,s}(\lambda)=B_{21}\bar{x}_{10,s}(\lambda)+B_{22}\bar{y}_{10,s}(\lambda)+B_{23}\bar{z}_{10,s}(\lambda)$

B_{2j} −0,2298 1,1834 0,0464 (λ~545)

$\lambda_{1,m,2}$=506, 555, 606 P35: $\Sigma\bar{m}_{10,s}(\lambda)=96,69$

$\bar{m}_{10,s}(\lambda_{1,m,2})$=2,25, 4,52, 2,25



CEO70−5A_P35

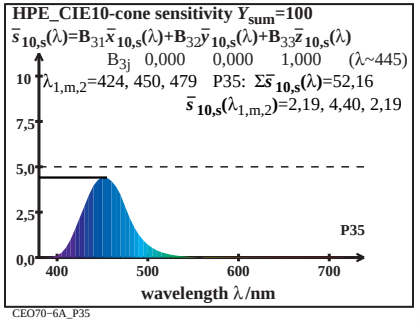
HPE_CIE10-cone sensitivity $Y_{sum}=100$

$\bar{s}_{10,s}(\lambda)=B_{31}\bar{x}_{10,s}(\lambda)+B_{32}\bar{y}_{10,s}(\lambda)+B_{33}\bar{z}_{10,s}(\lambda)$

B_{3j} 0,000 0,000 1,000 (λ~445)

$\lambda_{1,m,2}$=424, 450, 479 P35: $\Sigma\bar{s}_{10,s}(\lambda)=52,16$

$\bar{s}_{10,s}(\lambda_{1,m,2})$=2,19, 4,40, 2,19



CEO70−6A_P35

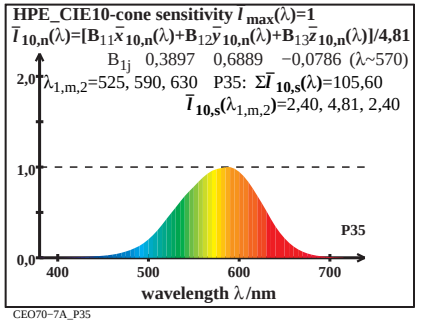
HPE_CIE10-cone sensitivity $l_{max}(\lambda)=1$

$\bar{l}_{10,n}(\lambda)=[B_{11}\bar{x}_{10,n}(\lambda)+B_{12}\bar{y}_{10,n}(\lambda)+B_{13}\bar{z}_{10,n}(\lambda)]/4,81$

B_{1j} 0,3897 0,6889 −0,0786 (λ~570)

$\lambda_{1,m,2}$=525, 590, 630 P35: $\Sigma\bar{l}_{10,s}(\lambda)=105,60$

$\bar{l}_{10,s}(\lambda_{1,m,2})$=2,40, 4,81, 2,40



CEO70−7A_P35

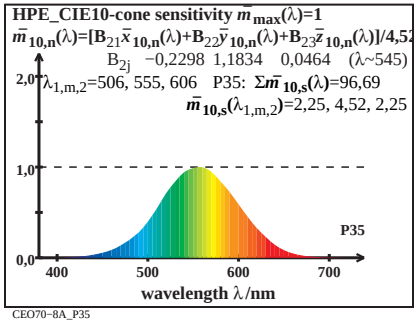
HPE_CIE10-cone sensitivity $\bar{m}_{max}(\lambda)=1$

$\bar{m}_{10,n}(\lambda)=[B_{21}\bar{x}_{10,n}(\lambda)+B_{22}\bar{y}_{10,n}(\lambda)+B_{23}\bar{z}_{10,n}(\lambda)]/4,5$

B_{2j} −0,2298 1,1834 0,0464 (λ~545)

$\lambda_{1,m,2}$=506, 555, 606 P35: $\Sigma\bar{m}_{10,s}(\lambda)=96,69$

$\bar{m}_{10,s}(\lambda_{1,m,2})$=2,25, 4,52, 2,25



CEO70−8A_P35

CEO70−7N

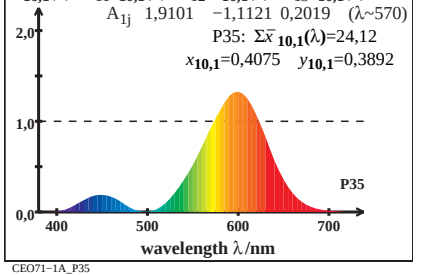
CIE10 spectral tristimulus values $\bar{y}_{max}(\lambda)=1$

$\bar{x}_{10,1}(\lambda)=A_{11}\bar{l}_{10,1}(\lambda)+A_{12}\bar{m}_{10,1}(\lambda)+A_{13}\bar{s}_{10,1}(\lambda)$

A_{1j} 1,9101 −1,1121 0,2019 (λ~570)

P35: $\Sigma\bar{x}_{10,1}(\lambda)=24,12$

$x_{10,1}=0,4075$ $y_{10,1}=0,3892$



CEO71−1A_P35

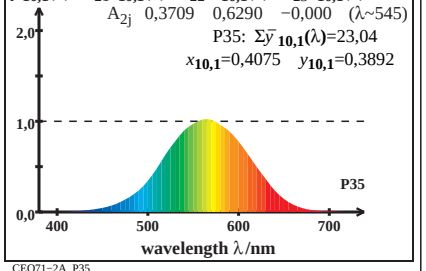
CIE10 spectral tristimulus values $\bar{y}_{max}(\lambda)=1$

$\bar{y}_{10,1}(\lambda)=A_{21}\bar{l}_{10,1}(\lambda)+A_{22}\bar{m}_{10,1}(\lambda)+A_{23}\bar{s}_{10,1}(\lambda)$

A_{2j} 0,3709 0,6290 −0,000 (λ~545)

P35: $\Sigma\bar{y}_{10,1}(\lambda)=23,04$

$x_{10,1}=0,4075$ $y_{10,1}=0,3892$



CEO71−2A_P35

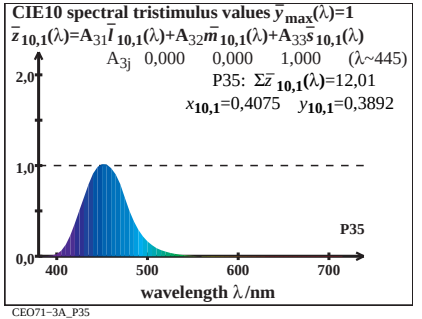
CIE10 spectral tristimulus values $\bar{y}_{max}(\lambda)=1$

$\bar{z}_{10,1}(\lambda)=A_{31}\bar{l}_{10,1}(\lambda)+A_{32}\bar{m}_{10,1}(\lambda)+A_{33}\bar{s}_{10,1}(\lambda)$

A_{3j} 0,000 0,000 1,000 (λ~445)

P35: $\Sigma\bar{z}_{10,1}(\lambda)=12,01$

$x_{10,1}=0,4075$ $y_{10,1}=0,3892$



CEO71−3A_P35

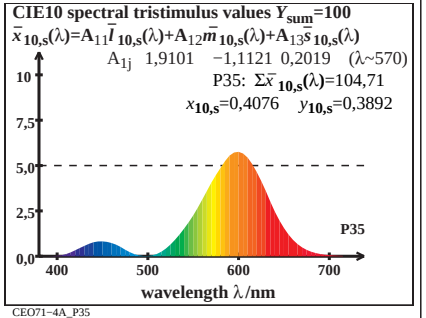
CIE10 spectral tristimulus values $Y_{sum}=100$

$\bar{x}_{10,s}(\lambda)=A_{11}\bar{l}_{10,s}(\lambda)+A_{12}\bar{m}_{10,s}(\lambda)+A_{13}\bar{s}_{10,s}(\lambda)$

A_{1j} 1,9101 −1,1121 0,2019 (λ~570)

P35: $\Sigma\bar{x}_{10,s}(\lambda)=104,71$

$x_{10,s}=0,4076$ $y_{10,s}=0,3892$



CEO71−4A_P35

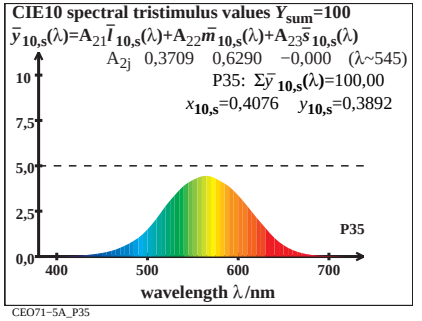
CIE10 spectral tristimulus values $Y_{sum}=100$

$\bar{y}_{10,s}(\lambda)=A_{21}\bar{l}_{10,s}(\lambda)+A_{22}\bar{m}_{10,s}(\lambda)+A_{23}\bar{s}_{10,s}(\lambda)$

A_{2j} 0,3709 0,6290 −0,000 (λ~545)

P35: $\Sigma\bar{y}_{10,s}(\lambda)=100,00$

$x_{10,s}=0,4076$ $y_{10,s}=0,3892$



CEO71−5A_P35

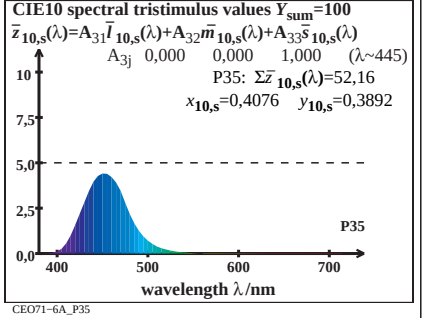
CIE10 spectral tristimulus values $Y_{sum}=100$

$\bar{z}_{10,s}(\lambda)=A_{31}\bar{l}_{10,s}(\lambda)+A_{32}\bar{m}_{10,s}(\lambda)+A_{33}\bar{s}_{10,s}(\lambda)$

A_{3j} 0,000 0,000 1,000 (λ~445)

P35: $\Sigma\bar{z}_{10,s}(\lambda)=52,16$

$x_{10,s}=0,4076$ $y_{10,s}=0,3892$



CEO71−6A_P35

CIE10 spectral tristimulus values $\bar{y}_{max}(\lambda)=1$

$\bar{y}_{10,1}(\lambda)=A_{21}\bar{l}_{10,1}(\lambda)+A_{22}\bar{m}_{10,1}(\lambda)+A_{23}\bar{s}_{10,1}(\lambda)$

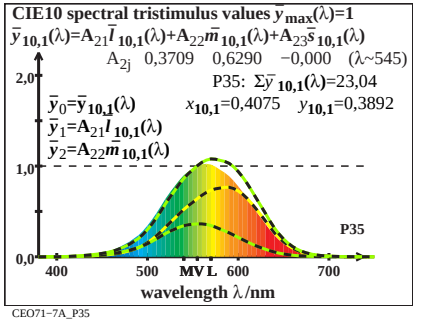
A_{2j} 0,3709 0,6290 −0,000 (λ~545)

P35: $\Sigma\bar{y}_{10,1}(\lambda)=23,04$

$\bar{y}_0=\bar{y}_{10,1}(\lambda)$ $x_{10,1}=0,4075$ $y_{10,1}=0,3892$

$\bar{y}_1=A_{21}\bar{l}_{10,1}(\lambda)$

$\bar{y}_2=A_{22}\bar{m}_{10,1}(\lambda)$



CEO71−7A_P35

CIE10 spectral tristimulus values $\bar{y}_{max}(\lambda)=1$

$\bar{y}_{10,1}(\lambda)=A_{21}\bar{l}_{10,1}(\lambda)+A_{22}\bar{m}_{10,1}(\lambda)+A_{23}\bar{s}_{10,1}(\lambda)$

A_{2j} 0,3709 0,6290 −0,000 (λ~545)

P35: $\Sigma\bar{y}_{10,1}(\lambda)=23,04$

$\bar{y}_0=\bar{y}_{10,1}(\lambda)$ $x_{10,1}=0,4075$ $y_{10,1}=0,3892$

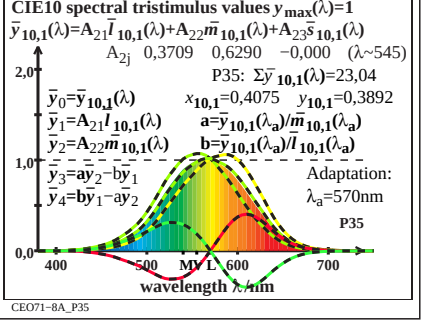
$\bar{y}_1=A_{21}\bar{l}_{10,1}(\lambda)$ $a=\bar{y}_{10,1}(\lambda_a)/\bar{m}_{10,1}(\lambda_a)$

$\bar{y}_2=A_{22}\bar{m}_{10,1}(\lambda)$ $b=\bar{y}_{10,1}(\lambda_a)/\bar{l}_{10,1}(\lambda_a)$

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

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

Adaptation:
λ_a=570nm



CEO71−8A_P35

CEO71−7N

TUB-test chart CEO7; HPE-CIE_10-degree colorimetry, CIE and R21 components of $\bar{y}(\lambda)$
Cone sensivity, transformation, and spectral tristimulus values for CIE illuminant P35, linear data

see similar files: http://farbe.li.tu-berlin.de/CEO7/CEO7.HTM
technical information: http://farbe.li.tu-berlin.de or http://color.li.tu-berlin.de

TUB registration: 20220101-CEO7/CEO7L0NP.PDF /.PS
application for measurement of offset print output

TUB material: code=rha4ta

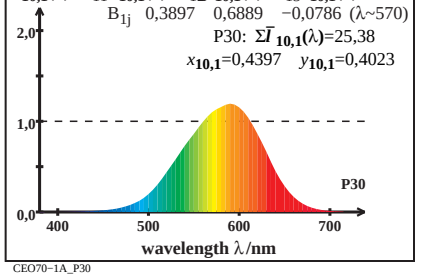
HPE_CIE10-cone sensitivity $\bar{y}_{max}(\lambda)=1$

$\bar{l}_{10,1}(\lambda)=B_{11}\bar{x}_{10,1}(\lambda)+B_{12}\bar{y}_{10,1}(\lambda)+B_{13}\bar{z}_{10,1}(\lambda)$

B_{1j} 0,3897 0,6889 −0,0786 (λ~570)

P30: $\Sigma\bar{l}_{10,1}(\lambda)=25{,}38$

$x_{10,1}=0{,}4397$ $y_{10,1}=0{,}4023$



CEO70−1A_P30

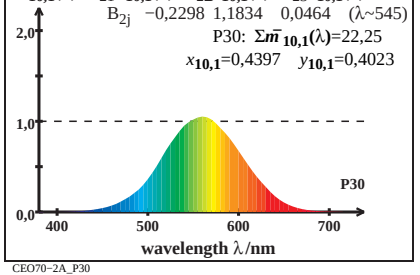
HPE_CIE10-cone sensitivity $\bar{y}_{max}(\lambda)=1$

$\bar{m}_{10,1}(\lambda)=B_{21}\bar{x}_{10,1}(\lambda)+B_{22}\bar{y}_{10,1}(\lambda)+B_{23}\bar{z}_{10,1}(\lambda)$

B_{2j} −0,2298 1,1834 0,0464 (λ~545)

P30: $\Sigma\bar{m}_{10,1}(\lambda)=22{,}25$

$x_{10,1}=0{,}4397$ $y_{10,1}=0{,}4023$



CEO70−2A_P30

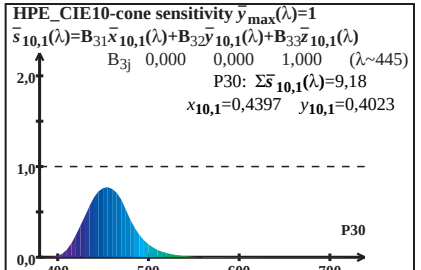
HPE_CIE10-cone sensitivity $\bar{y}_{max}(\lambda)=1$

$\bar{s}_{10,1}(\lambda)=B_{31}\bar{x}_{10,1}(\lambda)+B_{32}\bar{y}_{10,1}(\lambda)+B_{33}\bar{z}_{10,1}(\lambda)$

B_{3j} 0,000 0,000 1,000 (λ~445)

P30: $\Sigma\bar{s}_{10,1}(\lambda)=9{,}18$

$x_{10,1}=0{,}4397$ $y_{10,1}=0{,}4023$



CEO70−3A_P30

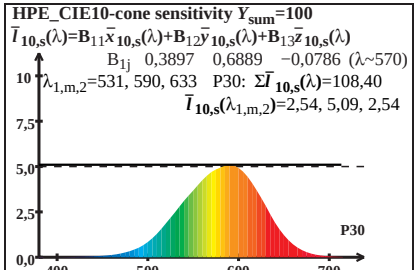
HPE_CIE10-cone sensitivity $Y_{sum}=100$

$\bar{l}_{10,s}(\lambda)=B_{11}\bar{x}_{10,s}(\lambda)+B_{12}\bar{y}_{10,s}(\lambda)+B_{13}\bar{z}_{10,s}(\lambda)$

B_{1j} 0,3897 0,6889 −0,0786 (λ~570)

$\lambda_{1,m,2}$=531, 590, 633 P30: $\Sigma\bar{l}_{10,s}(\lambda)=108{,}40$

$\bar{l}_{10,s}(\lambda_{1,m,2})$=2,54, 5,09, 2,54



CEO70−4A_P30

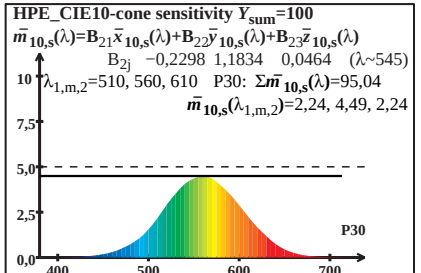
HPE_CIE10-cone sensitivity $Y_{sum}=100$

$\bar{m}_{10,s}(\lambda)=B_{21}\bar{x}_{10,s}(\lambda)+B_{22}\bar{y}_{10,s}(\lambda)+B_{23}\bar{z}_{10,s}(\lambda)$

B_{2j} −0,2298 1,1834 0,0464 (λ~545)

$\lambda_{1,m,2}$=510, 560, 610 P30: $\Sigma\bar{m}_{10,s}(\lambda)=95{,}04$

$\bar{m}_{10,s}(\lambda_{1,m,2})$=2,24, 4,49, 2,24



CEO70−5A_P30

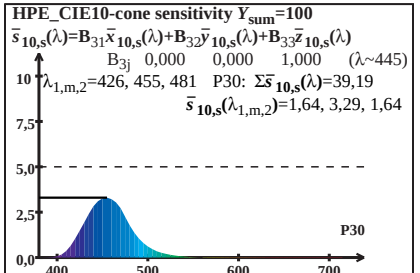
HPE_CIE10-cone sensitivity $Y_{sum}=100$

$\bar{s}_{10,s}(\lambda)=B_{31}\bar{x}_{10,s}(\lambda)+B_{32}\bar{y}_{10,s}(\lambda)+B_{33}\bar{z}_{10,s}(\lambda)$

B_{3j} 0,000 0,000 1,000 (λ~445)

$\lambda_{1,m,2}$=426, 455, 481 P30: $\Sigma\bar{s}_{10,s}(\lambda)=39{,}19$

$\bar{s}_{10,s}(\lambda_{1,m,2})$=1,64, 3,29, 1,64



CEO70−6A_P30

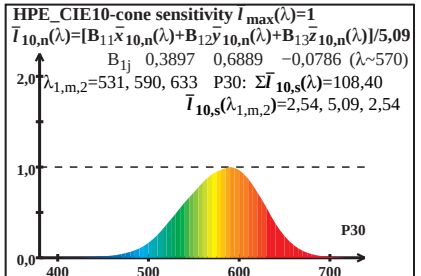
HPE_CIE10-cone sensitivity $l_{max}(\lambda)=1$

$\bar{l}_{10,n}(\lambda)=[B_{11}\bar{x}_{10,n}(\lambda)+B_{12}\bar{y}_{10,n}(\lambda)+B_{13}\bar{z}_{10,n}(\lambda)]/5{,}09$

B_{1j} 0,3897 0,6889 −0,0786 (λ~570)

$\lambda_{1,m,2}$=531, 590, 633 P30: $\Sigma\bar{l}_{10,s}(\lambda)=108{,}40$

$\bar{l}_{10,s}(\lambda_{1,m,2})$=2,54, 5,09, 2,54



CEO70−7A_P30

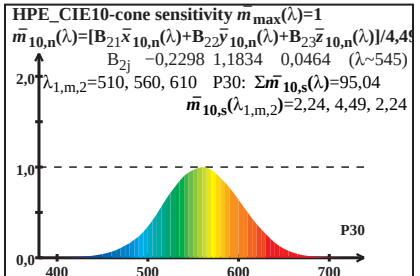
HPE_CIE10-cone sensitivity $\bar{m}_{max}(\lambda)=1$

$\bar{m}_{10,n}(\lambda)=[B_{21}\bar{x}_{10,n}(\lambda)+B_{22}\bar{y}_{10,n}(\lambda)+B_{23}\bar{z}_{10,n}(\lambda)]/4{,}9$

B_{2j} −0,2298 1,1834 0,0464 (λ~545)

$\lambda_{1,m,2}$=510, 560, 610 P30: $\Sigma\bar{m}_{10,s}(\lambda)=95{,}04$

$\bar{m}_{10,s}(\lambda_{1,m,2})$=2,24, 4,49, 2,24



CEO70−8A_P30

CEO70−7N

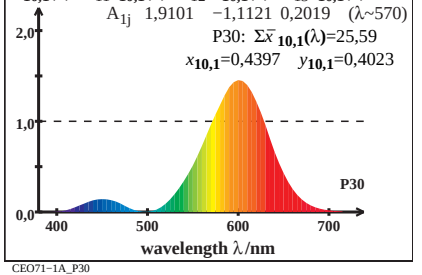
CIE10 spectral tristimulus values $\bar{y}_{max}(\lambda)=1$

$\bar{x}_{10,1}(\lambda)=A_{11}\bar{l}_{10,1}(\lambda)+A_{12}\bar{m}_{10,1}(\lambda)+A_{13}\bar{s}_{10,1}(\lambda)$

A_{1j} 1,9101 −1,1121 0,2019 (λ~570)

P30: $\Sigma\bar{x}_{10,1}(\lambda)=25{,}59$

$x_{10,1}=0{,}4397$ $y_{10,1}=0{,}4023$



CEO71−1A_P30

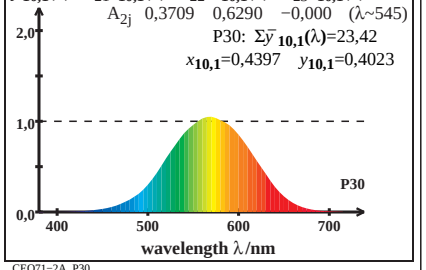
CIE10 spectral tristimulus values $\bar{y}_{max}(\lambda)=1$

$\bar{y}_{10,1}(\lambda)=A_{21}\bar{l}_{10,1}(\lambda)+A_{22}\bar{m}_{10,1}(\lambda)+A_{23}\bar{s}_{10,1}(\lambda)$

A_{2j} 0,3709 0,6290 −0,000 (λ~545)

P30: $\Sigma\bar{y}_{10,1}(\lambda)=23{,}42$

$x_{10,1}=0{,}4397$ $y_{10,1}=0{,}4023$



CEO71−2A_P30

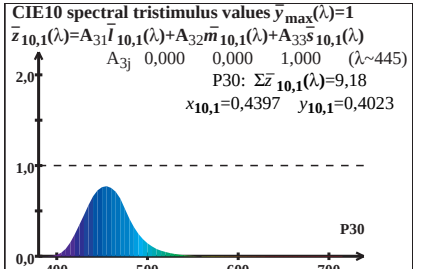
CIE10 spectral tristimulus values $\bar{y}_{max}(\lambda)=1$

$\bar{z}_{10,1}(\lambda)=A_{31}\bar{l}_{10,1}(\lambda)+A_{32}\bar{m}_{10,1}(\lambda)+A_{33}\bar{s}_{10,1}(\lambda)$

A_{3j} 0,000 0,000 1,000 (λ~445)

P30: $\Sigma\bar{z}_{10,1}(\lambda)=9{,}18$

$x_{10,1}=0{,}4397$ $y_{10,1}=0{,}4023$



CEO71−3A_P30

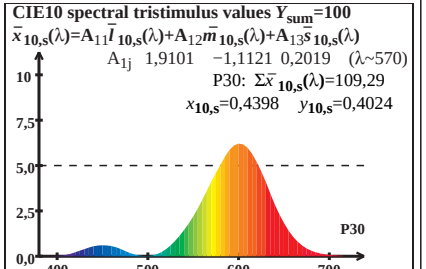
CIE10 spectral tristimulus values $Y_{sum}=100$

$\bar{x}_{10,s}(\lambda)=A_{11}\bar{l}_{10,s}(\lambda)+A_{12}\bar{m}_{10,s}(\lambda)+A_{13}\bar{s}_{10,s}(\lambda)$

A_{1j} 1,9101 −1,1121 0,2019 (λ~570)

P30: $\Sigma\bar{x}_{10,s}(\lambda)=109{,}29$

$x_{10,s}=0{,}4398$ $y_{10,s}=0{,}4024$



CEO71−4A_P30

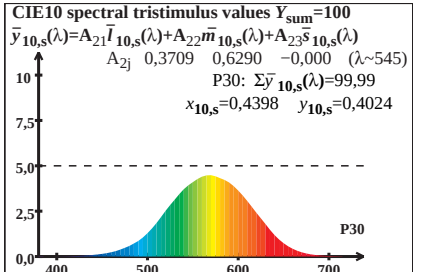
CIE10 spectral tristimulus values $Y_{sum}=100$

$\bar{y}_{10,s}(\lambda)=A_{21}\bar{l}_{10,s}(\lambda)+A_{22}\bar{m}_{10,s}(\lambda)+A_{23}\bar{s}_{10,s}(\lambda)$

A_{2j} 0,3709 0,6290 −0,000 (λ~545)

P30: $\Sigma\bar{y}_{10,s}(\lambda)=99{,}99$

$x_{10,s}=0{,}4398$ $y_{10,s}=0{,}4024$



CEO71−5A_P30

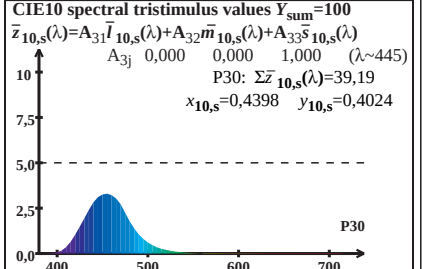
CIE10 spectral tristimulus values $Y_{sum}=100$

$\bar{z}_{10,s}(\lambda)=A_{31}\bar{l}_{10,s}(\lambda)+A_{32}\bar{m}_{10,s}(\lambda)+A_{33}\bar{s}_{10,s}(\lambda)$

A_{3j} 0,000 0,000 1,000 (λ~445)

P30: $\Sigma\bar{z}_{10,s}(\lambda)=39{,}19$

$x_{10,s}=0{,}4398$ $y_{10,s}=0{,}4024$



CEO71−6A_P30

CIE10 spectral tristimulus values $\bar{y}_{max}(\lambda)=1$

$\bar{y}_{10,1}(\lambda)=A_{21}\bar{l}_{10,1}(\lambda)+A_{22}\bar{m}_{10,1}(\lambda)+A_{23}\bar{s}_{10,1}(\lambda)$

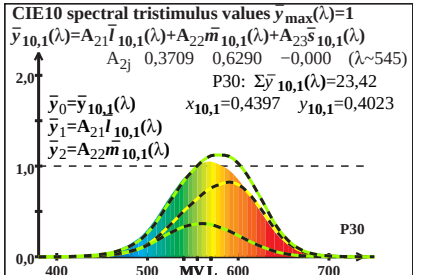
A_{2j} 0,3709 0,6290 −0,000 (λ~545)

P30: $\Sigma\bar{y}_{10,1}(\lambda)=23{,}42$

$\bar{y}_0=\bar{y}_{10,1}(\lambda)$ $x_{10,1}=0{,}4397$ $y_{10,1}=0{,}4023$

$\bar{y}_1=A_{21}\bar{l}_{10,1}(\lambda)$

$\bar{y}_2=A_{22}\bar{m}_{10,1}(\lambda)$



CEO71−7A_P30

CIE10 spectral tristimulus values $\bar{y}_{max}(\lambda)=1$

$\bar{y}_{10,1}(\lambda)=A_{21}\bar{l}_{10,1}(\lambda)+A_{22}\bar{m}_{10,1}(\lambda)+A_{23}\bar{s}_{10,1}(\lambda)$

A_{2j} 0,3709 0,6290 −0,000 (λ~545)

P30: $\Sigma\bar{y}_{10,1}(\lambda)=23{,}42$

$\bar{y}_0=\bar{y}_{10,1}(\lambda)$ $x_{10,1}=0{,}4397$ $y_{10,1}=0{,}4023$

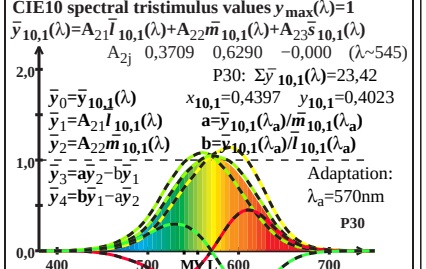
$\bar{y}_1=A_{21}\bar{l}_{10,1}(\lambda)$ $a=\bar{y}_{10,1}(\lambda_a)/\bar{m}_{10,1}(\lambda_a)$

$\bar{y}_2=A_{22}\bar{m}_{10,1}(\lambda)$ $b=\bar{y}_{10,1}(\lambda_a)/\bar{l}_{10,1}(\lambda_a)$

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

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

Adaptation:
λ_a=570nm



CEO71−8A_P30

CEO71−7N

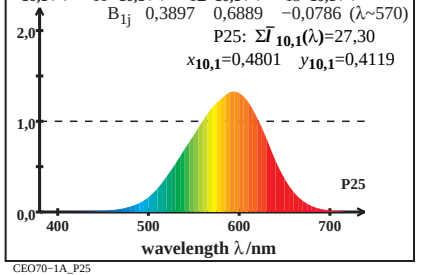
TUB-test chart CEO7; HPE-CIE_10-degree colorimetry, CIE and R21 components of $\bar{y}(\lambda)$
Cone sensivity, transformation, and spectral tristimulus values for CIE illuminant P30, linear data

see similar files: http://farbe.li.tu-berlin.de/CEO7/CEO7.HTM
technical information: http://farbe.li.tu-berlin.de or http://color.li.tu-berlin.de

TUB registration: 20220101-CEO7/CEO7L0NP.PDF /.PS
application for measurement of offset print output

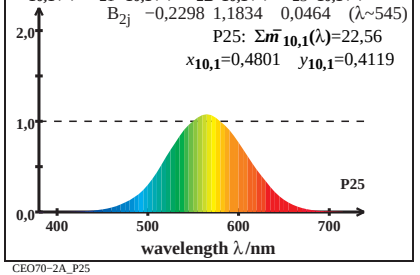
TUB material: code=rha4ta

HPE_CIE10-cone sensitivity $\bar{y}_{max}(\lambda)=1$
$\bar{l}_{10,1}(\lambda)=B_{11}\bar{x}_{10,1}(\lambda)+B_{12}\bar{y}_{10,1}(\lambda)+B_{13}\bar{z}_{10,1}(\lambda)$
B_{1j} 0,3897 0,6889 −0,0786 (λ~570)
P25: $\Sigma\bar{l}_{10,1}(\lambda)$=27,30
$x_{10,1}$=0,4801 $y_{10,1}$=0,4119



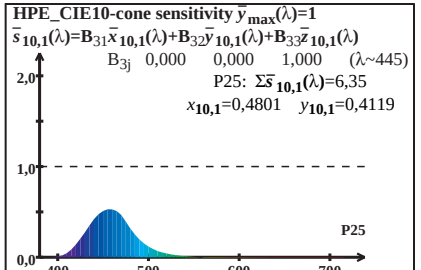
CEO70−1A_P25

HPE_CIE10-cone sensitivity $\bar{y}_{max}(\lambda)=1$
$\bar{m}_{10,1}(\lambda)=B_{21}\bar{x}_{10,1}(\lambda)+B_{22}\bar{y}_{10,1}(\lambda)+B_{23}\bar{z}_{10,1}(\lambda)$
B_{2j} −0,2298 1,1834 0,0464 (λ~545)
P25: $\Sigma\bar{m}_{10,1}(\lambda)$=22,56
$x_{10,1}$=0,4801 $y_{10,1}$=0,4119



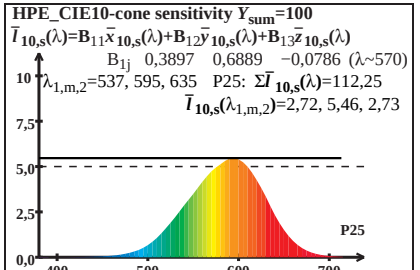
CEO70−2A_P25

HPE_CIE10-cone sensitivity $\bar{y}_{max}(\lambda)=1$
$\bar{s}_{10,1}(\lambda)=B_{31}\bar{x}_{10,1}(\lambda)+B_{32}\bar{y}_{10,1}(\lambda)+B_{33}\bar{z}_{10,1}(\lambda)$
B_{3j} 0,000 0,000 1,000 (λ~445)
P25: $\Sigma\bar{s}_{10,1}(\lambda)$=6,35
$x_{10,1}$=0,4801 $y_{10,1}$=0,4119



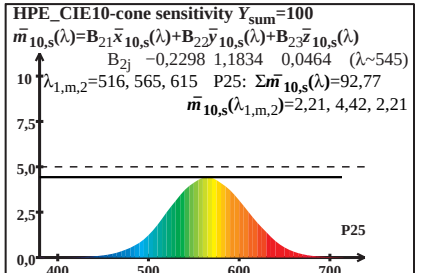
CEO70−3A_P25

HPE_CIE10-cone sensitivity $Y_{sum}=100$
$\bar{l}_{10,s}(\lambda)=B_{11}\bar{x}_{10,s}(\lambda)+B_{12}\bar{y}_{10,s}(\lambda)+B_{13}\bar{z}_{10,s}(\lambda)$
B_{1j} 0,3897 0,6889 −0,0786 (λ~570)
$\lambda_{1,m,2}$=537, 595, 635 P25: $\Sigma\bar{l}_{10,s}(\lambda)$=112,25
$\bar{l}_{10,s}(\lambda_{1,m,2})$=2,72, 5,46, 2,73



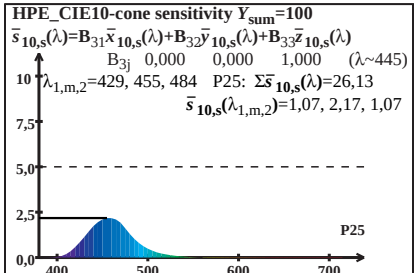
CEO70−4A_P25

HPE_CIE10-cone sensitivity $Y_{sum}=100$
$\bar{m}_{10,s}(\lambda)=B_{21}\bar{x}_{10,s}(\lambda)+B_{22}\bar{y}_{10,s}(\lambda)+B_{23}\bar{z}_{10,s}(\lambda)$
B_{2j} −0,2298 1,1834 0,0464 (λ~545)
$\lambda_{1,m,2}$=516, 565, 615 P25: $\Sigma\bar{m}_{10,s}(\lambda)$=92,77
$\bar{m}_{10,s}(\lambda_{1,m,2})$=2,21, 4,42, 2,21



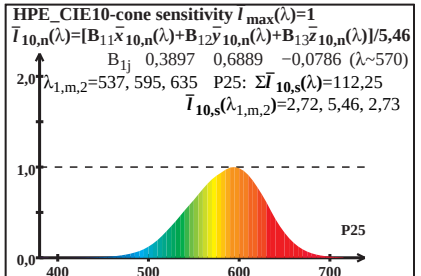
CEO70−5A_P25

HPE_CIE10-cone sensitivity $Y_{sum}=100$
$\bar{s}_{10,s}(\lambda)=B_{31}\bar{x}_{10,s}(\lambda)+B_{32}\bar{y}_{10,s}(\lambda)+B_{33}\bar{z}_{10,s}(\lambda)$
B_{3j} 0,000 0,000 1,000 (λ~445)
$\lambda_{1,m,2}$=429, 455, 484 P25: $\Sigma\bar{s}_{10,s}(\lambda)$=26,13
$\bar{s}_{10,s}(\lambda_{1,m,2})$=1,07, 2,17, 1,07



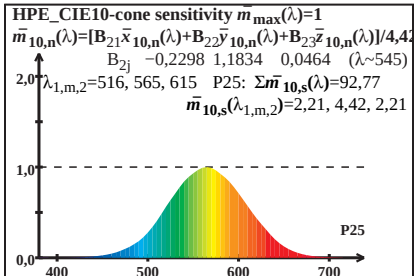
CEO70−6A_P25

HPE_CIE10-cone sensitivity $l_{max}(\lambda)=1$
$\bar{l}_{10,n}(\lambda)=[B_{11}\bar{x}_{10,n}(\lambda)+B_{12}\bar{y}_{10,n}(\lambda)+B_{13}\bar{z}_{10,n}(\lambda)]/5,46$
B_{1j} 0,3897 0,6889 −0,0786 (λ~570)
$\lambda_{1,m,2}$=537, 595, 635 P25: $\Sigma\bar{l}_{10,s}(\lambda)$=112,25
$\bar{l}_{10,s}(\lambda_{1,m,2})$=2,72, 5,46, 2,73



CEO70−7A_P25

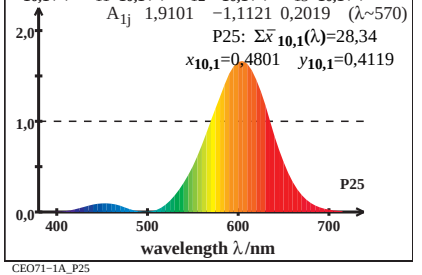
HPE_CIE10-cone sensitivity $\bar{m}_{max}(\lambda)=1$
$\bar{m}_{10,n}(\lambda)=[B_{21}\bar{x}_{10,n}(\lambda)+B_{22}\bar{y}_{10,n}(\lambda)+B_{23}\bar{z}_{10,n}(\lambda)]/4,4$
B_{2j} −0,2298 1,1834 0,0464 (λ~545)
$\lambda_{1,m,2}$=516, 565, 615 P25: $\Sigma\bar{m}_{10,s}(\lambda)$=92,77
$\bar{m}_{10,s}(\lambda_{1,m,2})$=2,21, 4,42, 2,21



CEO70−8A_P25

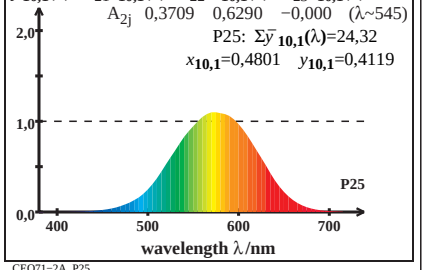
CEO70−7N

CIE10 spectral tristimulus values $\bar{y}_{max}(\lambda)=1$
$\bar{x}_{10,1}(\lambda)=A_{11}\bar{l}_{10,1}(\lambda)+A_{12}\bar{m}_{10,1}(\lambda)+A_{13}\bar{s}_{10,1}(\lambda)$
A_{1j} 1,9101 −1,1121 0,2019 (λ~570)
P25: $\Sigma\bar{x}_{10,1}(\lambda)$=28,34
$x_{10,1}$=0,4801 $y_{10,1}$=0,4119



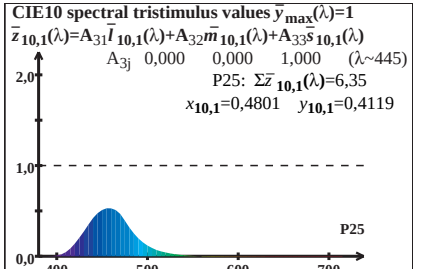
CEO71−1A_P25

CIE10 spectral tristimulus values $\bar{y}_{max}(\lambda)=1$
$\bar{y}_{10,1}(\lambda)=A_{21}\bar{l}_{10,1}(\lambda)+A_{22}\bar{m}_{10,1}(\lambda)+A_{23}\bar{s}_{10,1}(\lambda)$
A_{2j} 0,3709 0,6290 −0,000 (λ~545)
P25: $\Sigma\bar{y}_{10,1}(\lambda)$=24,32
$x_{10,1}$=0,4801 $y_{10,1}$=0,4119



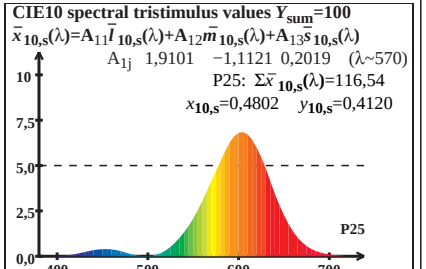
CEO71−2A_P25

CIE10 spectral tristimulus values $\bar{y}_{max}(\lambda)=1$
$\bar{z}_{10,1}(\lambda)=A_{31}\bar{l}_{10,1}(\lambda)+A_{32}\bar{m}_{10,1}(\lambda)+A_{33}\bar{s}_{10,1}(\lambda)$
A_{3j} 0,000 0,000 1,000 (λ~445)
P25: $\Sigma\bar{z}_{10,1}(\lambda)$=6,35
$x_{10,1}$=0,4801 $y_{10,1}$=0,4119



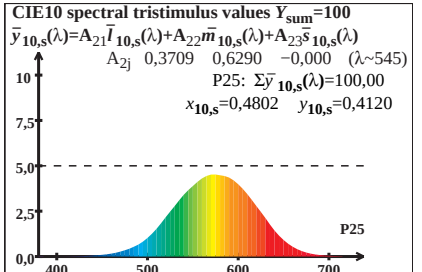
CEO71−3A_P25

CIE10 spectral tristimulus values $Y_{sum}=100$
$\bar{x}_{10,s}(\lambda)=A_{11}\bar{l}_{10,s}(\lambda)+A_{12}\bar{m}_{10,s}(\lambda)+A_{13}\bar{s}_{10,s}(\lambda)$
A_{1j} 1,9101 −1,1121 0,2019 (λ~570)
P25: $\Sigma\bar{x}_{10,s}(\lambda)$=116,54
$x_{10,s}$=0,4802 $y_{10,s}$=0,4120



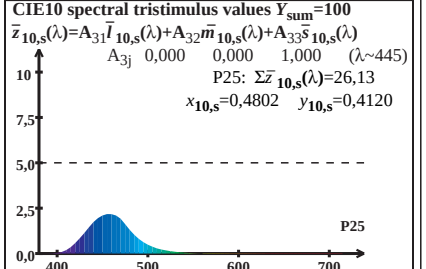
CEO71−4A_P25

CIE10 spectral tristimulus values $Y_{sum}=100$
$\bar{y}_{10,s}(\lambda)=A_{21}\bar{l}_{10,s}(\lambda)+A_{22}\bar{m}_{10,s}(\lambda)+A_{23}\bar{s}_{10,s}(\lambda)$
A_{2j} 0,3709 0,6290 −0,000 (λ~545)
P25: $\Sigma\bar{y}_{10,s}(\lambda)$=100,00
$x_{10,s}$=0,4802 $y_{10,s}$=0,4120



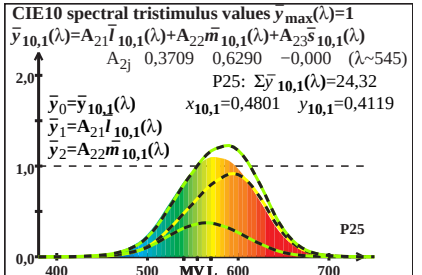
CEO71−5A_P25

CIE10 spectral tristimulus values $Y_{sum}=100$
$\bar{z}_{10,s}(\lambda)=A_{31}\bar{l}_{10,s}(\lambda)+A_{32}\bar{m}_{10,s}(\lambda)+A_{33}\bar{s}_{10,s}(\lambda)$
A_{3j} 0,000 0,000 1,000 (λ~445)
P25: $\Sigma\bar{z}_{10,s}(\lambda)$=26,13
$x_{10,s}$=0,4802 $y_{10,s}$=0,4120



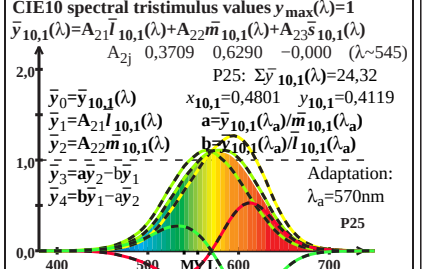
CEO71−6A_P25

CIE10 spectral tristimulus values $\bar{y}_{max}(\lambda)=1$
$\bar{y}_{10,1}(\lambda)=A_{21}\bar{l}_{10,1}(\lambda)+A_{22}\bar{m}_{10,1}(\lambda)+A_{23}\bar{s}_{10,1}(\lambda)$
A_{2j} 0,3709 0,6290 −0,000 (λ~545)
P25: $\Sigma\bar{y}_{10,1}(\lambda)$=24,32
$\bar{y}_0=\bar{y}_{10,1}(\lambda)$ $x_{10,1}$=0,4801 $y_{10,1}$=0,4119
$\bar{y}_1=A_{21}\bar{l}_{10,1}(\lambda)$
$\bar{y}_2=A_{22}\bar{m}_{10,1}(\lambda)$



CEO71−7A_P25

CIE10 spectral tristimulus values $\bar{y}_{max}(\lambda)=1$
$\bar{y}_{10,1}(\lambda)=A_{21}\bar{l}_{10,1}(\lambda)+A_{22}\bar{m}_{10,1}(\lambda)+A_{23}\bar{s}_{10,1}(\lambda)$
A_{2j} 0,3709 0,6290 −0,000 (λ~545)
P25: $\Sigma\bar{y}_{10,1}(\lambda)$=24,32
$\bar{y}_0=\bar{y}_{10,1}(\lambda)$ $x_{10,1}$=0,4801 $y_{10,1}$=0,4119
$\bar{y}_1=A_{21}\bar{l}_{10,1}(\lambda)$ $a=\bar{y}_{10,1}(\lambda_a)/\bar{m}_{10,1}(\lambda_a)$
$\bar{y}_2=A_{22}\bar{m}_{10,1}(\lambda)$ $b=\bar{y}_{10,1}(\lambda_a)/\bar{l}_{10,1}(\lambda_a)$
$\bar{y}_3=a\bar{y}_2-b\bar{y}_1$
$\bar{y}_4=b\bar{y}_1-a\bar{y}_2$
Adaptation: λ_a=570nm



CEO71−8A_P25

CEO71−7N

TUB-test chart CEO7; HPE-CIE_10-degree colorimetry, CIE and R21 components of $\bar{y}(\lambda)$
Cone sensivity, transformation, and spectral tristimulus values for CIE illuminant P25, linear data