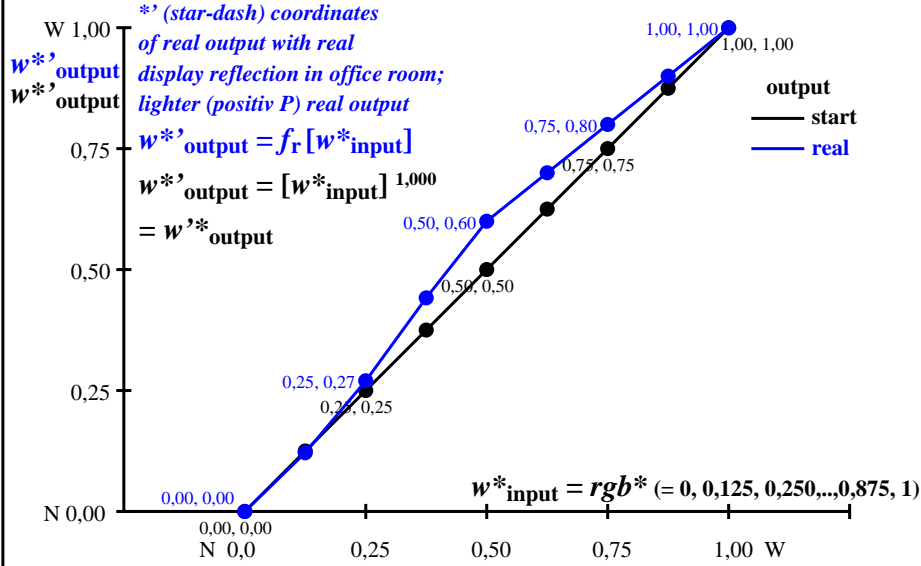
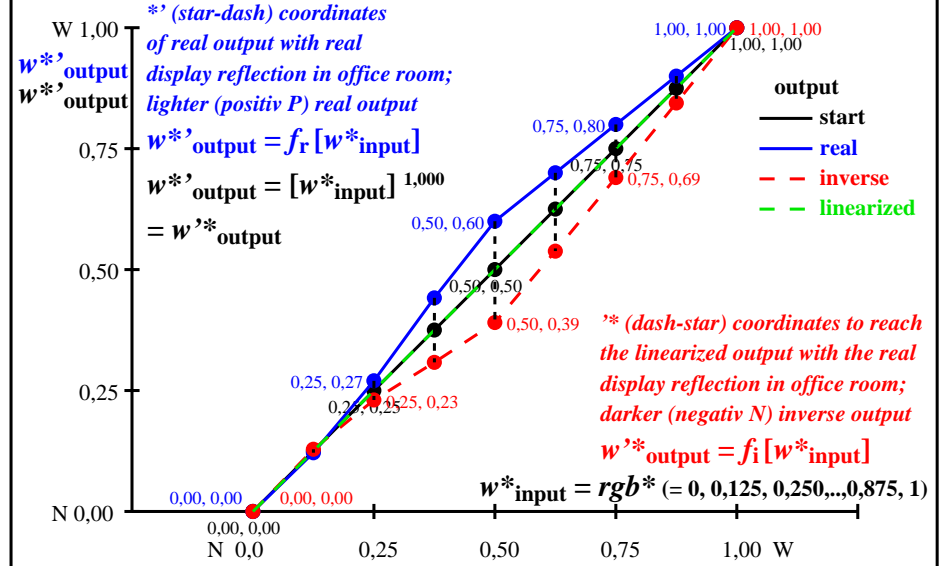


### Colour management for output linearization of a 9 step grey scale



### Colour management for output linearization of a 9 step grey scale



hef00-3n

hef01-3n

#### Three, 5 and 9 colour steps for visual evaluation

s: 0, 125, 250, 375, 500, 625, 750, 875, 1000  $L^*_{TUBLOG,U}=[50/\log(5)] \log(Y/Y_U)+50, Y_N=4, Y_U=20, Y_W=100$   
 Black N00w – Black N16w = White W

0,000	0,500	1,000	0,000	0,250	0,500	0,750	1,000	0,000	0,125	0,250	0,375	0,500	0,625	0,750	0,875	1,000
N00w	N08w	N16w	N00w	N04w	N08w	N12w	N16w	N00w	N02w	N04w	N06w	N08w	N10w	N12w	N14w	N16w
0	12?	25?	37?	50?	62?	75?	87?	100								

#### Three, 5 and 9 colour steps, numeric specification

0,00 0,00	e08=0, .. a1=e08	1,00 1,00	0,00 0,00	e04=0, .. b1=e04*a1	1,00 0,00	1,00 0,00	e48=0, .. b2=a1 b3=e48*(1-b2)+b2	1,00 1,00	0,00 0,00	e02=0, .. c1=e02*b1	1,00 0,00	1,00 0,00	c24=0, .. c2=b1 c3=e24*(b2-b1)+b1	0,00 1,00	0,00 1,00	e46=0, .. c4=b2 c5=e46*(b3-b2)+b2	1,00 0,00	1,00 0,00	e68=0, .. c6=b3 c7=e68*(1-b3)+b3	1,00 1,00
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#### Three, 5 and 9 colour steps, numeric calculation example

0,00	0,60	1,00	0,00	0,45	1,00	0,39	1,00	0,00	0,45	1,00	0,52	0,00	0,50	1,00	0,00	0,50	1,00	0,00	0,50	1,00					
0,000	0,600	1,000	0,000	0,270	0,600	0,760	1,000	0,000	0,121	0,270	0,441	0,600	0,680	0,760	0,880	1,000	0,000	0,121	0,270	0,441	0,600	0,680	0,760	0,880	1,000
0,000	0,390	1,000	0,000	0,230	0,390	0,739	1,000	0,000	0,128	0,230	0,308	0,390	0,563	0,739	0,869	1,000	0,000	0,128	0,230	0,308	0,390	0,563	0,739	0,869	1,000

#### Three, 5 and 9 colour steps, produced visual linearization

r: 0, 121, 270, 441, 600, 680, 760, 880, 1000  $L^*_{TUBLOG,U}=[50/\log(5)] \log(Y/Y_U)+50, Y_N=4, Y_U=20, Y_W=100$   
 i: 0, 128, 230, 308, 390, 563, 739, 869, 1000  
 Black N00w – Black N16w = White W

0,000	0,500	1,000	0,000	0,250	0,500	0,750	1,000	0,000	0,125	0,250	0,375	0,500	0,625	0,750	0,875	1,000
0,000	0,600	1,000	0,000	0,270	0,600	0,760	1,000	0,000	0,121	0,270	0,441	0,600	0,680	0,760	0,880	1,000
0,000	0,390	1,000	0,000	0,230	0,390	0,739	1,000	0,000	0,128	0,230	0,308	0,390	0,563	0,739	0,869	1,000
0,000	0,500	1,000	0,000	0,250	0,500	0,750	1,000	0,000	0,125	0,250	0,375	0,500	0,625	0,750	0,875	1,000
N00w	N08w	N16w	N00w	N04w	N08w	N12w	N16w	N00w	N02w	N04w	N06w	N08w	N10w	N12w	N14w	N16w

hef00-7n, Test samples: 3, 5 and 9 colour steps, greu=0.500, expu=1.000, expa=1.000, expi=1.000

see similar files of the whole serie: <http://farbe.li.tu-berlin.de/hefs.htm>  
 technical information: <http://farbe.li.tu-berlin.de> or <http://color.li.tu-berlin.de>

TUB registration: 20241001-hef0/hef010np.pdf / .ps  
 application for evaluation and measurement of display or print output

TUB material: code=rha4ta