Relationship brightness B^*_{LT} and luminance L_T as function of viewing angle φ for test equal adaptation luminance L_a = 1000 cd/m²

$B^*_{LT}(L_T, L_a, \varphi) = C_T(\varphi) L_T^n - B_0(L_a, \varphi)$ brightness B^*_{LT} [1]

$B_0(L_a, \varphi) = C_T(\varphi)[S_0(\varphi) + S_1(\varphi) L_a^n]$ (n=0,31) [2]

$L_{Lt}(L_a, \varphi) = [S_0(\varphi) + S_1(\varphi) L_a^n]^{1/n}$ (t=black threshold) [3]

L_T	φ	$C_T(\varphi)$	$S_0(\varphi)$	$S_1(\varphi)$	$B_0(L_a,\varphi)$	B^*_{LT}	L_{Lt}	L_a/L_t
1000	120’	22,969	0,0718	0,2448	49,51	145,98	11,91	83,94
1000	100’	23,128	0,0747	0,2494	50,82	146,02	12,68	78,86
1000	90’	23,415	0,1086	0,2526	52,89	146,39	13,85	72,15
1000	60’	23,973	0,1313	0,2657	57,37	146,66	16,69	59,88
1000	30’	26,235	0,1797	0,3188	75,92	147,37	30,80	32,46
1000	20’	27,971	0,2013	0,3555	90,28	147,78	43,81	22,82
1000	10’	30,747	0,2730	0,3984	112,66	149,03	65,96	15,16
221,4U	120’	22,969	0,0718	0,2448	49,51	72,99U	11,91	83,94

hep40−5a L_{aj}=1000, L_r=300, Lajdr=3,33, Lajdren=1,45, 0’ <= φ <= 120’

Relationship brightness B^*_{LT} and luminance L_T as function of viewing angle φ for test equal adaptation luminance L_a = 1000 cd/m²

$B^*_{LT}(L_T, L_a, \varphi) = s_x(\varphi) L_T^n - d_x(L_a, \varphi)$ brightness B^*_{LT} [1]

$B_0(L_a, \varphi) = C_T(\varphi)[S_0(\varphi) + S_1(\varphi) L_a^n]$ (n=0,31) [2]

$s_x(\varphi) = C_T(\varphi)$ [3] $d_x(L_a,\varphi) = B_0(L_a, \varphi)$ [4] (s=scaling factor)

L_T	φ	$C_T(\varphi)$	$S_0(\varphi)$	$S_1(\varphi)$	$B_0(L_a,\varphi)$	B^*_{LT}	$s_x(\varphi)$	$d_x(L_a,\varphi)$
1000	120’	22,969	0,0718	0,2448	49,51	145,98	22,96	49,51
1000	100’	23,128	0,0747	0,2494	50,82	146,02	23,12	50,82
1000	90’	23,415	0,1086	0,2526	52,89	146,39	23,41	52,89
1000	60’	23,973	0,1313	0,2657	57,37	146,66	23,97	57,37
1000	30’	26,235	0,1797	0,3188	75,92	147,37	26,23	75,92
1000	20’	27,971	0,2013	0,3555	90,28	147,78	27,97	90,28
1000	10’	30,747	0,2730	0,3984	112,66	149,03	30,74	112,66
221,4U	120’	22,969	0,0718	0,2448	49,51	72,99U	22,96	49,51

hep40−6a L_{aj}=1000, L_r=300, Lajdr=3,33, Lajdren=1,45, 0’ <= φ <= 120’

Relationship brightness B^*_{YT} and tristimulus value Y_T as function of viewing angle φ for test equal adaptation luminance L_a = 1000 cd/m²

$B^*_{YT}(L_T, L_a, \varphi) = [C_T(\varphi) L_T^n - B_0(L_a, \varphi)] L_{ra}^n$ brightness B^*_{YT} [1]

$B_0(L_a, \varphi) = C_T(\varphi)[S_0(\varphi) + S_1(\varphi) L_a^n]$ (n=0,31, $L_{ra}^n = (L_{300}/L_a)^n$) [2]

$L_{Yt}(L_a, \varphi) = [S_0(\varphi) + S_1(\varphi) L_a^n]^{1/n} L_{ra}^n$ (t=black threshold)

Y_T	φ	$C_T(\varphi)$	$S_0(\varphi)$	$S_1(\varphi)$	$B_0(L_a,\varphi)$	B^*_{YT}	L_{Yt}	L_a/L_t
1000	120’	22,969	0,0718	0,2448	49,51	100,51	8,20	83,94
1000	100’	23,128	0,0747	0,2494	50,82	100,53	8,73	78,86
1000	90’	23,415	0,1086	0,2526	52,89	100,79	9,54	72,15
1000	60’	23,973	0,1313	0,2657	57,37	100,97	11,49	59,88
1000	30’	26,235	0,1797	0,3188	75,92	101,46	21,21	32,46
1000	20’	27,971	0,2013	0,3555	90,28	101,75	30,16	22,82
1000	10’	30,747	0,2730	0,3984	112,66	102,61	45,41	15,16
92,9U	120’	22,969	0,0718	0,2448	49,51	50,00U	8,20	83,94

hep40−7a L_{aj}=1000, L_r=300, Lajdr=3,33, Lajdren=1,45, 0’ <= φ <= 120’

Relationship brightness B^*_{YT} and tristimulus value Y_T as function of viewing angle φ for test equal adaptation luminance L_a = 1000 cd/m²

$B^*_{YT}(L_T, L_a, \varphi) = s_y(L_a,\varphi) L_T^n - d_y(L_a, \varphi)$ brightness B^*_{YT} [1]

$B_0(L_a, \varphi) = C_T(\varphi)[S_0(\varphi) + S_1(\varphi) L_a^n]$ (n=0,31, $L_{ra}^n = (L_{300}/L_a)^n$) [2]

$s_y(\varphi) = C_T(\varphi) L_{ra}^n$ [3] $d_y(L_a,\varphi) = B_0(L_a, \varphi) L_{ra}^n$ [4] (s=scaling factor)

Y_T	φ	$C_T(\varphi)$	$S_0(\varphi)$	$S_1(\varphi)$	$B_0(L_a,\varphi)$	B^*_{YT}	$s_y(L_a,\varphi)$	$d_y(L_a,\varphi)$
1000	120’	22,969	0,0718	0,2448	49,51	100,51	15,81	34,08
1000	100’	23,128	0,0747	0,2494	50,82	100,53	15,92	34,99
1000	90’	23,415	0,1086	0,2526	52,89	100,79	16,12	36,41
1000	60’	23,973	0,1313	0,2657	57,37	100,97	16,50	39,50
1000	30’	26,235	0,1797	0,3188	75,92	101,46	18,06	52,27
1000	20’	27,971	0,2013	0,3555	90,28	101,75	19,25	62,15
1000	10’	30,747	0,2730	0,3984	112,66	102,61	21,16	77,56
48,0U	120’	22,969	0,0718	0,2448	49,51	50,00U	15,81	34,08

hep40−8a L_{aj}=1000, L_r=300, Lajdr=3,33, Lajdren=1,45, 0’ <= φ <= 120’

hep40−3R_R