Relationship brightness B^*_{LT} and luminance L_T as function of viewing angle φ for test equal adaptation luminance L_a = 200 cd/m^2

$B^*_{LT}(L_T, L_a, \varphi) = C_T(\varphi) L_T^n - B_0(L_a, \varphi)$ 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
200	120’	22,969	0,0718	0,2448	30,71	87,99	2,55	78,36
200	100’	23,128	0,0747	0,2494	31,54	87,98	2,72	73,51
200	90’	23,415	0,1086	0,2526	33,11	87,89	3,05	65,36
200	60’	23,973	0,1313	0,2657	36,07	87,81	3,73	53,51
200	30’	26,235	0,1797	0,3188	47,94	87,63	6,99	28,58
200	20’	27,971	0,2013	0,3555	57,02	87,52	9,95	20,09
200	10’	30,747	0,2730	0,3984	71,70	87,19	15,35	13,02
44,9U	120’	22,969	0,0718	0,2448	30,71	43,99U	2,55	78,36

hep41−1a L_{aj}=200, L_r=300, Lajdr=0,66, Lajdren=0,88, 0’ <= φ <= 120’

Relationship brightness B^*_{LT} and luminance L_T as function of viewing angle φ for test equal adaptation luminance L_a = 200 cd/m^2

$B^*_{LT}(L_T, L_a, \varphi) = s_x(\varphi) L_T^n - d_x(L_a, \varphi)$ 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}	$s_x(\varphi)$	$d_x(L_a,\varphi)$
200	120’	22,969	0,0718	0,2448	30,71	87,99	22,96	30,71
200	100’	23,128	0,0747	0,2494	31,54	87,98	23,12	31,54
200	90’	23,415	0,1086	0,2526	33,11	87,89	23,41	33,11
200	60’	23,973	0,1313	0,2657	36,07	87,81	23,97	36,07
200	30’	26,235	0,1797	0,3188	47,94	87,63	26,23	47,94
200	20’	27,971	0,2013	0,3555	57,02	87,52	27,97	57,02
200	10’	30,747	0,2730	0,3984	71,70	87,19	30,74	71,70
44,9U	120’	22,969	0,0718	0,2448	30,71	43,99U	22,96	30,71

hep41−2a L_{aj}=200, L_r=300, Lajdr=0,66, Lajdren=0,88, 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 = 200 cd/m^2

$B^*_{YT}(L_T, L_a, \varphi) = [C_T(\varphi) L_T^n - B_0(L_a, \varphi)] L_{ra}^n$ 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
200	120’	22,969	0,0718	0,2448	30,71	99,77	2,89	78,36
200	100’	23,128	0,0747	0,2494	31,54	99,76	3,08	73,51
200	90’	23,415	0,1086	0,2526	33,11	99,66	3,46	65,36
200	60’	23,973	0,1313	0,2657	36,07	99,57	4,23	53,51
200	30’	26,235	0,1797	0,3188	47,94	99,36	7,93	28,58
200	20’	27,971	0,2013	0,3555	57,02	99,24	11,28	20,09
200	10’	30,747	0,2730	0,3984	71,70	98,87	17,41	13,02
45,0U	120’	22,969	0,0718	0,2448	30,71	50,00U	2,89	78,36

hep41−3a L_{aj}=200, L_r=300, Lajdr=0,66, Lajdren=0,88, 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 = 200 cd/m^2

$B^*_{YT}(L_T, L_a, \varphi) = s_y(L_a,\varphi) L_T^n - d_y(L_a, \varphi)$ 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}	$s_y(L_a,\varphi)$	$d_y(L_a,\varphi)$
200	120’	22,969	0,0718	0,2448	30,71	99,77	26,04	34,82
200	100’	23,128	0,0747	0,2494	31,54	99,76	26,22	35,76
200	90’	23,415	0,1086	0,2526	33,11	99,66	26,55	37,55
200	60’	23,973	0,1313	0,2657	36,07	99,57	27,18	40,90
200	30’	26,235	0,1797	0,3188	47,94	99,36	29,74	54,37
200	20’	27,971	0,2013	0,3555	57,02	99,24	31,71	64,66
200	10’	30,747	0,2730	0,3984	71,70	98,87	34,86	81,30
19,2U	120’	22,969	0,0718	0,2448	30,71	50,00U	26,04	34,82

hep41−4a L_{aj}=200, L_r=300, Lajdr=0,66, Lajdren=0,88, 0’ <= φ <= 120’