

S-8023

Reflection factor	
P _d	0,913

Reference thickness	
d [mm]	3

Values guaranteed	
The color of the glass is within a circle of the CIE Yu' v' UCS (1976), defined by	
$(u' - 0,088)^2 + (v' - 0,543)^2 = (0,037)^2$	
for any black body radiator 1500 K to 3200 K	
Black body radiator	Photopic Transmittance [%]
2100 K	15.0 ± 1.5
1500 K	10.0 ± 1.5

Refractive index n		
λ [nm]	Element	n
587,6	He	1,541
		± 0,005

Density	
ρ [g/cm ³]	2,75

Bubble content	
Bubble class	1

Chemical resistance	
FR class	0
SR class	4.0
AR class	3.0

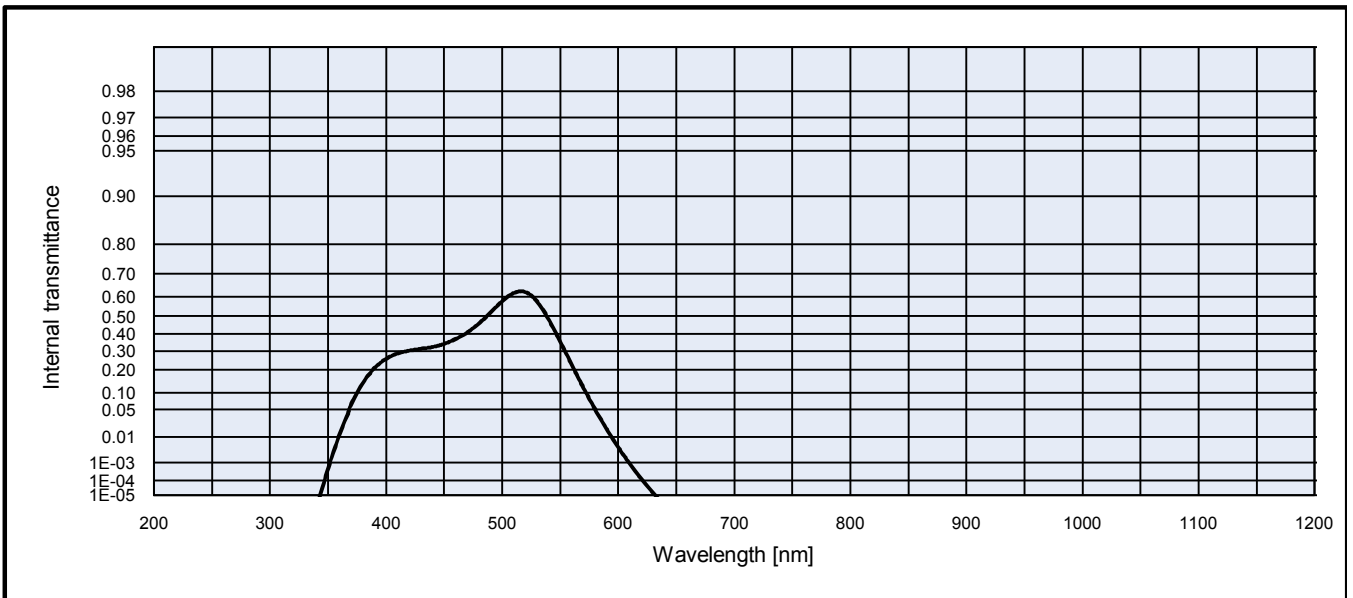
Transformation temperature	
T _g [°C]	(444)

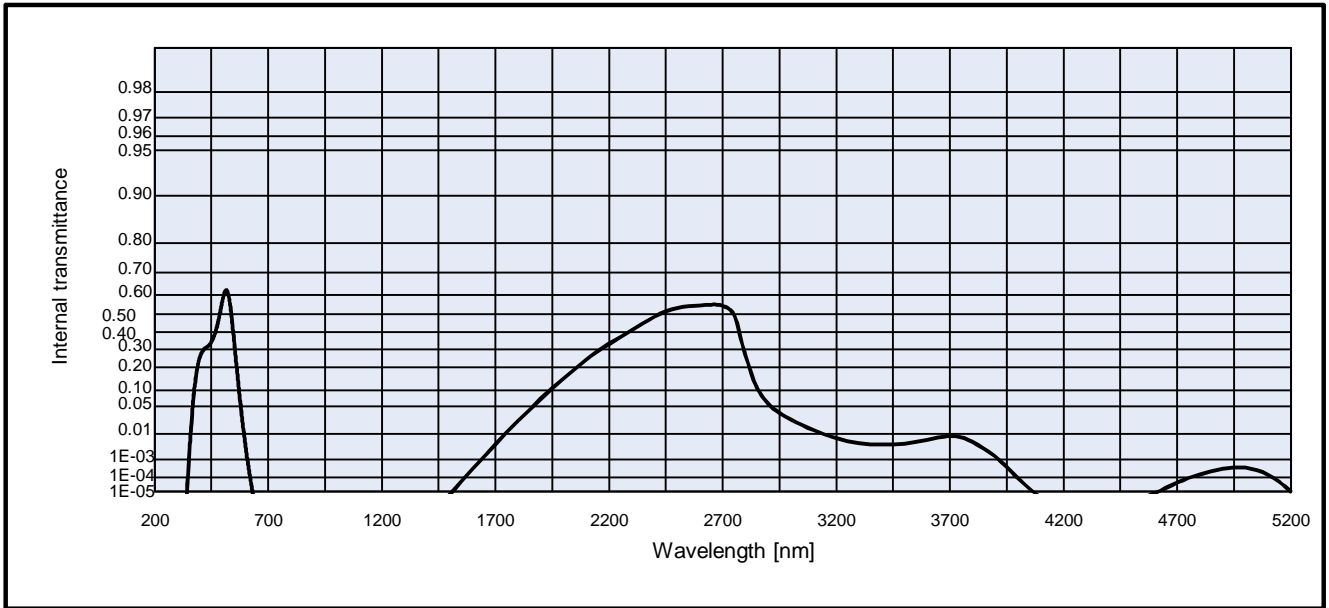
Thermal expansion	
α _{30/470°C} [10 ⁻⁶ /K]	
α _{20/300°C} [10 ⁻⁶ /K]	
α _{20/200°C} [10 ⁻⁶ /K]	9,7

Temperature coefficient	
T _k [nm/°C]	

Notes	
Ionically colored glass	
Band pass filter / short pass filter	
NVIS-Green A - 3 mm Band Pass Filter according to MIL-STD-3009	
passed thermal shock test as per MIL-STD-202F method 107F, Condition A	
[!!]	
protective coatings recommended	
Long-term changes in the polished surface are possible	
All data without tolerances are to be understood to be reference values.	
Guaranteed values are only those values listed in the section	
-Spectral values guaranteed-	

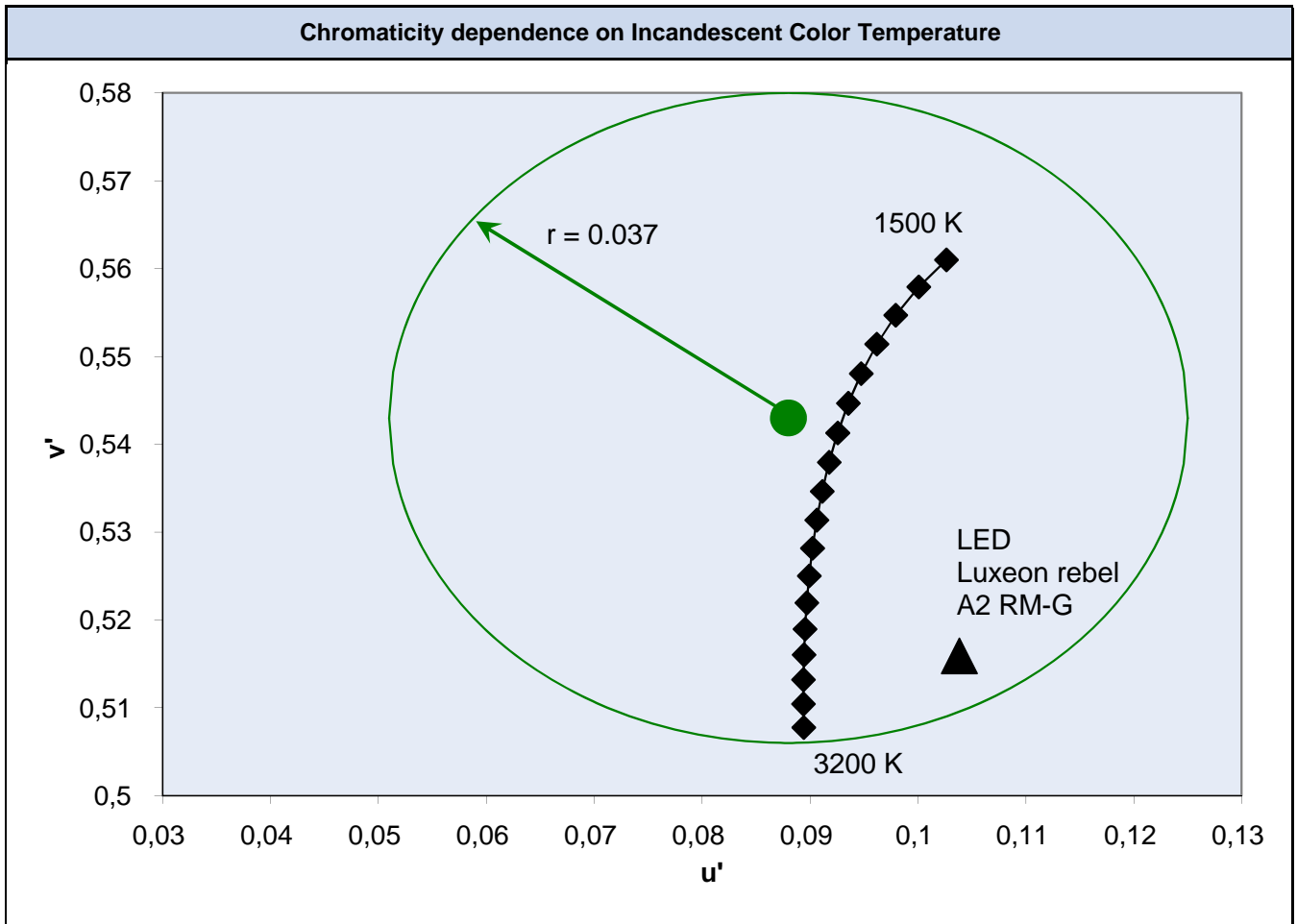
Colorimetric evaluation														
Illuminant		A (Planck T = 2856 K)			Illuminant		Planck T = 3200 K			Illuminant		D65 (T _c = 6504 K)		
d [mm]		1	2	3	d [mm]		1	2	3	d [mm]		1	2	3
x		0,277	0,218	0,189	x		0,262	0,209	0,182	x		0,206	0,176	0,160
y		0,459	0,474	0,486	y		0,437	0,449	0,460	y		0,328	0,334	0,346
Y		41	27	19	Y		43	28	21	Y		51	35	26
λ _d [nm]		500	500	500	λ _d [nm]		498	498	499	λ _d [nm]		491	492	493
P _e		0,39	0,52	0,59	P _e		0,39	0,52	0,59	P _e		0,39	0,50	0,54





Internal transmittance τ_i at reference thickness $d = 3$ mm
 The internal transmittance values, tabulated and graphically represented, are reference values only

λ [nm]	τ_i	λ [nm]	τ_i	λ [nm]	τ_i	λ [nm]	τ_i	λ [nm]	τ_i	λ [nm]	τ_i
200	< 1,0E-05	500	5,8E-01	800	< 1,0E-05	1100	< 1,0E-05	2200	3,3E-01	3700	8,5E-03
210	< 1,0E-05	510	6,2E-01	810	< 1,0E-05	1110	< 1,0E-05	2250	3,7E-01	3750	7,8E-03
220	< 1,0E-05	520	6,2E-01	820	< 1,0E-05	1120	< 1,0E-05	2300	4,1E-01	3800	5,4E-03
230	< 1,0E-05	530	5,8E-01	830	< 1,0E-05	1130	< 1,0E-05	2350	4,5E-01	3850	3,0E-03
240	< 1,0E-05	540	4,8E-01	840	< 1,0E-05	1140	< 1,0E-05	2400	4,9E-01	3900	1,4E-03
250	< 1,0E-05	550	3,5E-01	850	< 1,0E-05	1150	< 1,0E-05	2450	5,2E-01	3950	4,3E-04
260	< 1,0E-05	560	2,2E-01	860	< 1,0E-05	1160	< 1,0E-05	2500	5,4E-01	4000	9,2E-05
270	< 1,0E-05	570	1,2E-01	870	< 1,0E-05	1170	< 1,0E-05	2550	5,5E-01	4050	1,8E-05
280	< 1,0E-05	580	4,9E-02	880	< 1,0E-05	1180	< 1,0E-05	2600	5,5E-01	4100	< 1,0E-05
290	< 1,0E-05	590	1,6E-02	890	< 1,0E-05	1190	< 1,0E-05	2650	5,5E-01	4150	< 1,0E-05
300	< 1,0E-05	600	4,1E-03	900	< 1,0E-05	1200	< 1,0E-05	2700	5,5E-01	4200	< 1,0E-05
310	< 1,0E-05	610	8,1E-04	910	< 1,0E-05	1250	< 1,0E-05	2750	5,0E-01	4250	< 1,0E-05
320	< 1,0E-05	620	1,2E-04	920	< 1,0E-05	1300	< 1,0E-05	2800	2,7E-01	4300	< 1,0E-05
330	< 1,0E-05	630	1,4E-05	930	< 1,0E-05	1350	< 1,0E-05	2850	1,1E-01	4350	< 1,0E-05
340	< 1,0E-05	640	< 1,0E-05	940	< 1,0E-05	1400	< 1,0E-05	2900	5,9E-02	4400	< 1,0E-05
350	5,3E-04	650	< 1,0E-05	950	< 1,0E-05	1450	< 1,0E-05	2950	3,7E-02	4450	< 1,0E-05
360	1,2E-02	660	< 1,0E-05	960	< 1,0E-05	1500	< 1,0E-05	3000	2,6E-02	4500	< 1,0E-05
370	6,4E-02	670	< 1,0E-05	970	< 1,0E-05	1550	5,8E-05	3050	1,8E-02	4550	< 1,0E-05
380	1,4E-01	680	< 1,0E-05	980	< 1,0E-05	1600	3,3E-04	3100	1,3E-02	4600	< 1,0E-05
390	2,1E-01	690	< 1,0E-05	990	< 1,0E-05	1650	1,4E-03	3150	9,6E-03	4650	1,9E-05
400	2,6E-01	700	< 1,0E-05	1000	< 1,0E-05	1700	4,4E-03	3200	7,3E-03	4700	4,7E-05
410	2,9E-01	710	< 1,0E-05	1010	< 1,0E-05	1750	1,1E-02	3250	5,8E-03	4750	9,5E-05
420	3,0E-01	720	< 1,0E-05	1020	< 1,0E-05	1800	2,4E-02	3300	4,9E-03	4800	1,6E-04
430	3,1E-01	730	< 1,0E-05	1030	< 1,0E-05	1850	4,4E-02	3350	4,5E-03	4850	2,4E-04
440	3,2E-01	740	< 1,0E-05	1040	< 1,0E-05	1900	7,2E-02	3400	4,3E-03	4900	3,3E-04
450	3,4E-01	750	< 1,0E-05	1050	< 1,0E-05	1950	1,1E-01	3450	4,4E-03	4950	3,9E-04
460	3,7E-01	760	< 1,0E-05	1060	< 1,0E-05	2000	1,5E-01	3500	4,7E-03	5000	3,8E-04
470	4,1E-01	770	< 1,0E-05	1070	< 1,0E-05	2050	1,9E-01	3550	5,4E-03	5050	2,8E-04
480	4,6E-01	780	< 1,0E-05	1080	< 1,0E-05	2100	2,4E-01	3600	6,4E-03	5100	1,5E-04
490	5,2E-01	790	< 1,0E-05	1090	< 1,0E-05	2150	2,9E-01	3650	7,7E-03	5150	5,3E-05



Chromaticity and NVIS Radiance at thickness $d = 3 \text{ mm}$						
Planck [K]	u'	v'	x	y	Y	NR_A
1500	0,103	0,561	0,254	0,616	10,2	5,5E-11
1600	0,100	0,558	0,245	0,607	11,2	5,3E-11
1700	0,098	0,555	0,237	0,598	12,2	5,1E-11
1800	0,096	0,551	0,231	0,587	13,0	4,9E-11
1900	0,095	0,548	0,224	0,577	13,8	4,8E-11
2000	0,094	0,545	0,219	0,566	14,6	4,7E-11
2100	0,093	0,541	0,214	0,556	15,3	4,6E-11
2200	0,092	0,538	0,209	0,546	15,9	4,6E-11
2300	0,091	0,535	0,205	0,536	16,6	4,5E-11
2400	0,091	0,531	0,202	0,526	17,1	4,4E-11
2500	0,090	0,528	0,198	0,516	17,7	4,4E-11
2600	0,090	0,525	0,196	0,507	18,2	4,3E-11
2700	0,090	0,522	0,193	0,499	18,6	4,3E-11
2800	0,090	0,519	0,190	0,490	19,1	4,3E-11
2900	0,089	0,516	0,188	0,482	19,5	4,2E-11
3000	0,089	0,513	0,186	0,475	19,9	4,2E-11
3100	0,089	0,510	0,184	0,467	20,2	4,2E-11
3200	0,089	0,508	0,182	0,460	20,6	4,2E-11
LED	u'	v'	x	y	Y	NR_A
LUXEON rebel A2-RM-G	0,104	0,516	0,214	0,472	23,0	4,0E-11
other sources of illumination	A service for calculating chromaticity or NVIS radiance can be provided					

NVIS Green A

Chromaticity coordinates
(as defined by MIL-STD-3009)

$u' = 0.088$
 $v' = 0.543$

with radius of tolerance $r = 0.037$